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C/015/0015
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Annual Report

This Annual Report shows information the Division has for your mine. Submit the completed document and any additional information identified in the Appendices to the Division by the date specified by the cover letter. During a complete inspection an inspector will check and verify the information.

GENERAL INFORMATION

Company Name	CONSOL Mining Company LLC	Mine Name	Emery Deep Mine
Permit Number	C/015/0015	Permit expiration Date	1/07/2016
Operator Name	CONSOL Mining Company LLC	Phone Number	+1 (724) 485-4267
Mailing Address	1000 CONSOL Energy Drive	Email	kerrygoodballet@consolenergy.com
City	Canonsburg		
State	PA	Zip Code	15317

DOGM File Location or Annual Report Location

Excess Spoil Piles	<input type="checkbox"/> Required <input checked="" type="checkbox"/> Not Required	
Refuse Piles	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required	See Appendix A-2, Quarterly Coal Refuse Inspections
Impoundments	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required	See Appendix A-1, Annual Impoundment inspections
Other:		

OPERATOR COMMENTS

Underground mining operations have been idle with no production since 12/17/10.

Appendix A-1 (Annual Impoundment Inspections), Appendix A-2 (Quarterly Coal Refuse inspections), Appendix B-2 (Annual Subsidence Survey), Appendix B-2a (Monthly Subsidence Reports), Appendix B-3 (Bryant 14th West Flow), Appendix B-4 (Emery Town Well Report), Appendix D-1 (2010 Annual Report and final MSHA Mine Maps)

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: CULTURAL RESOURCE PROTECTION

Objective: To monitor the five eligible cultural resource sites that could be damaged as a result of subsidence in the zero zero north area. Sites include: 42Em3964, 42Em3965, 42Em3969, and 42Em3974.

Frequency: Annually after undermining until the Division determines subsidence is no longer an impact.

Status: ongoing, Undermining has not occurred to date.

Reports: Annual

Citation: MRP, Confidential Binder, Chapter X, Part A, Page 1

Operator Comments

No mining occurred under these sites. Underground mining operations have been idle with no production since 12/17/10.

Reviewer Comments Met Requirements Did Not Meet Requirements

Title: CONTROL OF COAL FINES DEPOSITION

Objective: To prevent coal fines from accumulating on undisturbed soils.

Frequency: Annual inspection of three transects, three sample sites each for % coal, 5 live vegetative cover, and presence of cryptogammic cover and soil color. Include the name of the person collecting the data, soil color data, and cryptogram observation.

Status: Annual inspections should be ongoing during periods of production. The data could be more effectively displayed using an excel spreadsheet so that comparisons of the data and trends may be seen over time.

Reports: Annual report, build on the table provided in Chapter X-C, page 5, with the inclusion of a column for soil color.

Citation: MRP, Chapter X part C, page 5b.

Operator Comments

Underground mining operations have been idle with no production since 12/17/10.
See Appendix X.C-3a (Emery Mine Coal Dust Plots monitoring Summary) for a compilation of historic data through 2014.
Per DOGM approval task id #4700, further dust monitoring pertaining to the above will be discontinued indefinitely per CH X-C pg 5b.

Reviewer Comments Met Requirements Did Not Meet Requirements

Title: INVESTIGATIVE STUDY INTO RECLAMATION PRACTICE

Objective: To develop an enhanced reclamation plan, based on an evaluation of soil chemistry and vegetation establishment on previous reclaimed sites. (results located in Chapter 11, Appendix 1). This is a four-phase project. Phase I involves reporting on the investigation of past reclamation sites and practices at the mine. Phase II requires to lower the profile of pond 6 stockpiles, reseed and keep wildlife off piles; reclaim ponds 4 & 5, and pond 1 subsoil pile; adjust final reclamation plans to incorporate beneficial treatments observed such as disking in 1 T/ac straw mulch; modify the seed mix to include only salt tolerant species and allow for a higher percentage of shrubs and forbs; adjust the reference areas to eliminate duplication. Phase III requires that the applied techniques be evaluated qualitatively annually and quantitatively between the 4th and 6th year. These evaluations will be correlated to precipitation data. Phase IV requires the permittee to revise the MRP to include the best technology for final revegetation.

Frequency: Ongoing

Status: Phase I has been met. Phase II has been met (2014).

Reports: Qualitative report annually, and quantitative report 4th and 6th year.

Citation: MRP, Chapter III, page 4a, and Chapter III, appendix 1

Operator Comments

Field meetings and historical review were held in April 2014. Three sites were chosen for re-grading and re-vegetation based on soil quality (see CH III pg 4a-4c).

Future vegetative monitoring results will be reported out through the annual report.

Reviewer Comments Met Requirements Did Not Meet Requirements



Title: WASTE STOCKPILE MATERIAL

Objective: To identify chemical characteristics of material as it is placed on the Temporary Coal mine Waste Stockpile. Sample and analyze waste for acid toxic parameters in accordance with R645-301-731.300.

Frequency: One sample/600 cu yds of coal mine waste brought to the temporary stockpile.

Status: Ongoing

Reports: Provide analysis in annual report.

Citation: MRP, Chapter II, page 10.

Operator Comments

No additional mine waste has been added in 2013. Underground mining operations have been idle with no production since 12/17/10.

Reviewer Comments Met Requirements Did Not Meet Requirements

Title: SUBSIDENCE MONITORING- MONTHLY INSPECTIONS

Objective: Inspect the area outlined on Plate V-5 as full extraction areas when pillar splitting begins.

Frequency: Monthly until there is no record of additional subsidence.

Status: Ongoing

Reports: Track in annual report to ensure compliance. Resubmittal of monthly reports is not necessary if the operator has already submitted them. Division engineer will review reports annually to ensure compliance.

Citation: MRP, Chapter V, Binder 1 of 3, Page 36

Operator Comments

Underground mining operations have been idle with no production since 12/17/10. Annual subsidence surveys were performed in 2013 (refer to Appendix B-2, Annual Subsidence Survey). Monthly subsidence reports of the 00 North subsidence area that was previously mitigated are underway and per DOGM email dated 10/12/13 copies of the monthly subsidence report are being emailed to DOGM and are compiled in the annual report at Appendix B-2a (Monthly Subsidence Reports).

Reviewer Comments Met Requirements Did Not Meet Requirements

Title: SUBSIDENCE MONITORING- POINTS OVER PARTIAL PILLAR SECTIONS

Objective: monitor points over partial pillar sections that have been resurveyed once and where no significant movement (<0.5') was found will be surveyed within one year. If this subsequent survey shows no significant movement from the original survey, the point will be surveyed again at one year intervals. Points over advancing sections need not be resurveyed unless there has been evidence that subsidence has taken place (caving).

Frequency: As needed

Status: Ongoing

Reports: Track in annual report to ensure compliance. Resubmittal of monthly reports is not necessary if the operator has already submitted them. Division engineer will review reports annually to ensure compliance.

Citation: MRP, Chapter V, binder 1 of 3, page 36.

Operator Comments

Refer to appendix B-2, 2012 Annual Subsidence Survey

Reviewer Comments Met Requirements Did Not Meet Requirements

Title: SUBSIDENCE MONITORING- NEW POINTS

Objective: Resurvey new monitoring points established over advancing sections such as mains and submains within one year after mining has been completed beneath the station. Include dates that points were established to track if the points have been resurveyed within a year after mining has been completed.

Frequency: As needed.

Status: Ongoing.

Reports: Track in annual report to ensure compliance. Resubmittal of monthly reports is not necessary if the operator has already submitted them. Division engineer will review reports annually to ensure compliance.

Citation: MRP, Chapter V, binder 1 of 3, page 36.

Operator Comments

N/A, Underground mining operations have been idle with no production since 12/17/10..

Reviewer Comments Met Requirements Did Not Meet Requirements

N/A, Underground mining operations have been idle with no production since 12/17/10..

Reviewer Comments Met Requirements Did Not Meet Requirements

Title: SUBSIDENCE MONITORING- MITIGATION REPORT

Objective: Provide, to the Division on an as-needed basis, a subsidence mitigation report that describes the surface mitigation projects and their status broken down by surface land owners.

Frequency: quarterly

Status: Ongoing

Reports: Track in annual report to ensure compliance. Resubmittal of monthly reports is not necessary if the operator has already submitted them. Division engineer will review reports annually to ensure compliance.

Citation: MRP, Chapter V, binder 1 of 3, page 37.

Operator Comments

Underground mining operations have been idle with no production since 12/17/10. Annual subsidence surveys were performed in 2014 (refer to Appendix B-2, Annual Subsidence Report).
Monthly subsidence reports of the 00 North subsidence area that was previously mitigated are underway and per DOGM email dated 10/12/13 copies of the monthly subsidence report are being emailed to DOGM and are compiled in the annual report at Appendix B-2a, Monthly Subsidence Report.
Monthly flow measurements of the dam breach panel 14th West (Bryant -14th West) are being taken and data presented in Appendix B-3, Bryant 14th West Flow

Reviewer Comments Met Requirements Did Not Meet Requirements

Title: SUBSIDENCE MONITORING- UPDATE PRE-SUBSIDENCE SURVEY

Objective: Update the existing pre-subsidence survey and plates six months before full extraction and provide copies to the surface land owner, the Division and the water conservancy district.

Frequency: As needed, six months prior to full extraction.

Status: Ongoing

Reports: Track in annual report to ensure compliance. Resubmittal of monthly reports is not necessary if the operator has already submitted them. Division engineer will review reports annually to ensure compliance.

Citation: MRP, Chapter V, binder 1 of 3, page 37.

Operator Comments

Underground mining operations have been idle with no production since 12/17/10. No new pre-subsidence surveys required with idle underground mining operations

Reviewer Comments Met Requirements Did Not Meet Requirements

Title: SUBSIDENCE MONITORING- RESURVEY NEW MONITORING POINTS

Objective: Resurvey new monitoring points established over partial pillar sections within six months after final mining has taken place beneath them. Provide dates that points were established to track if the points have been resurveyed within six months after final mining.

Frequency: as needed

Status: Ongoing

Reports: Track in annual report to ensure compliance. Resubmittal of monthly reports is not necessary if the operator has already submitted them. Division engineer will review reports annually to ensure compliance.

Citation: MRP, Chapter V, binder 1 of 3, page 36.

Operator Comments

N/A for 2013, no new monitoring points established. Underground mining operations have been idle with no production since 12/17/10..

Reviewer Comments Met Requirements Did Not Meet Requirements

Title: EMERY TOWN WELL MONITORING

Objective: Consol will evaluate data collected from the Emery town wells, using hydrographs and other appropriate means, and submit a report of findings to DOGM with the Annual Report.

Frequency: Annually

Status: Ongoing

Reports: Annual Report

Citation: Chapter VI, page VI-56.

Operator Comments

Refer to Appendix B-4 for the Emery Town Well Update report dated 1/15/2015.

Reviewer Comments Did Not Meet Requirements Met Requirements

Title: MONITOR FIVE ELIGIBLE SITES IN THE ZERO ZERO NORTH AREA FOR IMPACTS FROM MINING

Objective: To monitor eligible cultural resource sites that could be damaged as a result of subsidence. Sites include: 42Em3964, 42Em3965, 42Em3966, 42Em3969, 42Em3974.

Frequency: Annually after undermining until the Division determines subsidence is no longer an impact.

Status: Ongoing. Undermining was expected to occur in 2010.

Reports: Annual Report

Citation: MRP, Confidential, Chap. X, Part A. page1.

Operator Comments

These sites have not been undermined at this time

Reviewer Comments Met Requirements Did Not Meet Requirements

Title: WATER MONITORING

Objective: Consol will provide an annual water monitoring summary to be submitted by March 31st.

Frequency: Annually

Status: Ongoing

Reports: Annual Report

Citation: Chapter VI, page VI-28.

Operator Comments

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: SOIL SAMPLING AT 4TH EAST PORTAL

Objective: Verify soil characteristics prior to final reclamation grading through sampling and analysis for pH, SAR, and EC with particular attention to those areas that were treated with dust suppressant.

Frequency: At final reclamation.

Status: At final reclamation.

Reports: report findings to Division.

Citation: MRP, Chapter III part C.1, page 11 and Appendix X, part C-3, page 24.

Title: SOIL SAMPLING OF POND NO. 4 AND POND NO. 9

Objective: To determine if evaporative salts have accumulated to a toxic level.

Frequency: at final reclamation

Status: at final reclamation.

Reports: report to the Division.

Citation: MRP, Chapter III, part C-1, page 12.

Title: SOIL TESTING OF RECLAIMED SITE BEFORE SEEDING

Objective: To verify the suitability of the growth media.

Frequency: At reclamation.

Status: At reclamation, before seeding.

Reports: report to Division.

Citation: MRP, Chapter VIII, part C-4, page 21, paragraph 1.

Title: PERMANENT WASTE DISPOSAL SITE SUBSTITUTE TOPSOIL AND SUBSOIL COVER

Objective: To determine how to segregate best available material within the disturbed area for use as substitute topsoil from less desirable material to be used as cover over the coal mine waste permanent disposal site.

Frequency: Prior to construction of permanent disposal site, Consol will resample the gravel pit site for topsoil substitute quality and quantity, and cover material quality. The site will be sampled on one sample per acre grid, with analysis on one foot

Status: Future Commitment

Reports: report to Division.

Citation: MRP, Chap VII, App. VII-2, pg. 2

Title: IDENTIFY CHEMICAL CHARACTERISTICS OF COAL MINE WASTE PRIOR TO FINAL BURIAL OR TREATMENT

Objective: In accordance with R645-301-731.300, determine chemical characteristics of coal mine waste in existing temporary coal mine waste stockpile. Commitment to core temporary pile in at least 5 locations and analyze waste in 5 ft. intervals for pH, EC, SAR, Acid Base Accounting, Se, B, and texture.

Frequency: One year prior to moving the waste

Status: Future Commitment

Reports: report to Division.

Citation: MRP, Chap III, pg. 13

OPERATOR COMMENTS (OPTIONAL)

REVIEWER COMMENTS

REPORTING OF OTHER TECHNICAL DATA

Please list other technical data or information that was not included in the form above, but is required under the approved plan, which must be periodically submitted to the Division.

Please list attachments:

Reviewer Comments

MAPS

Copies of mine maps, current and up-to-date, are to be provided to the Division as an attachment to this report in accordance with the requirements of R645-301-525.240. The map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Mine maps are not considered confidential.

Map Name	Map Number	Included		Confidential	
		Yes	No	Yes	No
Annual subsidence map		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mine Map		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reviewer Comments Met Requirements Did Not Meet Requirements

Appendix A-1

Annual Impoundment Inspections

EarthFax Engineering Group, LLC

7324 South Union Park Avenue, Suite 100, Midvale, Utah 84047 • 801.561.1555 • FAX 801.561.1861



982-15

EarthFax

September 4, 2014

Kerry Goodballet, P.E.
Director - Permitting Coal Operations
CONSOL Energy, Inc.
1000 CONSOL Energy Drive
Canonsburg, PA 15317-6506

Subject: Emery Mine sedimentation pond annual inspection results

Dear Kerry:

On September 3, 2014 I inspected the sedimentation ponds at the Emery Mine for the purpose of the 2014 annual inspection. The results of those inspections are attached.

It is my opinion that the ponds adequately serve their intended purpose and may continue to be used for that purpose.

Please contact me if you have any questions.

Sincerely,

Richard B. White, P.E.
President

Enclosure

To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.

GENERAL INFORMATION

Report Date	<u>4 Sep 2014</u>
Permit Number	<u>ACT 015/015</u>
Mine Name	<u>Emery Mine</u>
Company Name	<u>Consolidated Coal Company</u>

IMPOUNDMENT IDENTIFICATION

Impoundment Name	<u>Pond 1</u>
Impoundment Number	<u>UPDES Outfall 001</u>
UPDES Permit Number	<u>UT0022616</u>
MSHA ID Number	<u>NA</u>

IMPOUNDMENT INSPECTION

Inspection Date	<u>3 Sep 2014</u>
Inspected by	<u>R.B. White</u>
Reason for Inspection	<u>Annual</u>

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

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

None

Questions a and b are required for an impoundment, which functions as a Sedimentation pond.

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

Design sediment storage volume = 10.3 AF
 60% sediment cleanout volume = 6.2 AF
 Sediment cleanout elevation = 5935.7 ft

Average elevation of sediment in pond bottom = 5933.5 ft (based on Aug 2010 survey)

- b. Principle and emergency spillway elevations.

Spillway elevation = 5939.3 ft
 With stop logs in place, the spillway elevation can be raised a minimum of an additional 12 inches.

2. 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 including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.

This pond serves as a location for the discharge of mine water, but has not been used for that purpose since taken temporarily out of service in 2011. The pond was empty in September 2014. The embankments remain in good condition and the pond remains capable of serving its intended purpose if re-activated.

3. Field Evaluation.

Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation 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 pond is capable of properly serving its intended function. Plenty of sediment capacity remains in the pond. The pond is adequate for continued use.

QUALIFICATION 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 designs 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 and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Richard Bowler Date: 4 Sep 2014

CERTIFIED REPORT

IMPOUNDMENT EVALUATION

If you answer NO to these questions, please explain under comments

- | | YES | NO |
|--|-------------------------------------|--------------------------|
| 1. Is impoundment designed and constructed in accordance with the approved plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Is impoundment free of instability, structural weakness, or any other hazardous conditions? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

COMMENTS/ OTHER INFORMATION

Consol has operated this pond in the past for the settlement of sediment contained in water that is discharged from the underground mine. Discharges to the pond ceased in 2011.

CERTIFICATION STATEMENT:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify 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 designs 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 in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering Group, LLC

Full Name and Title

Signature: Richard B. White Date 4 Sep 2014

P.E. Number & State 168246, UT

[P.E. Cert. Stamp]



*To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.*

GENERAL INFORMATION

Report Date	<u>4 Sep 2014</u>
Permit Number	<u>ACT 015/015</u>
Mine Name	<u>Emery Mine</u>
Company Name	<u>Consolidated Coal Company</u>

IMPOUNDMENT IDENTIFICATION

Impoundment Name	<u>Pond 2</u>
Impoundment Number	<u>UPDES Outfall 002</u>
UPDES Permit Number	<u>UT0022616</u>
MSHA ID Number	<u>NA</u>

IMPOUNDMENT INSPECTION

Inspection Date	<u>3 Sep 2014</u>
Inspected by	<u>R.B. White</u>
Reason for Inspection	<u>Annual</u>

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

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

None

Questions a and b are required for an impoundment, which functions as a Sedimentation pond.

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

Design sediment storage volume = 0.83 AF
 Design sediment storage elevation = 5905.3 ft
 60% sediment cleanout volume = 0.50 AF
 60% sediment cleanout elevation = 5903.0 ft

Approximate average current sediment storage elevation = 5900.4 ft

- b. Principle and emergency spillway elevations.

Spillway elevation = 5908.5 ft

2. 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 including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.

Water flows into this pond via a 12-inch diameter PVC pipe, which discharges onto riprap down the inside embankment. No water was in the pond at the time of the inspection. Large boulders have been placed downstream from the pond outlet. No signs of erosion were observed during the inspection. The dewatering culvert has been fitted with a skimmer. The pond appears to be in good, functional shape.

3. Field Evaluation.

Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation 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

No problems were observed.

QUALIFICATION 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 designs 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 and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Teiland J Swta Date: 4 Sep 2014

CERTIFIED REPORT

IMPOUNDMENT EVALUATION

If you answer NO to these questions, please explain under comments

	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is impoundment free of instability, structural weakness, or any other hazardous conditions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMMENTS/ OTHER INFORMATION

The pond appears to be functioning as designed and is adequate for continued use.

CERTIFICATION STATEMENT:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify 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 designs 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 in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering Group, LLC

Full Name and Title

Signature: *Richard B. White* Date *4 Sep 2014*

P.E. Number & State 168246, UT

[P.E. Cert. Stamp]



To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.

GENERAL INFORMATION

Report Date	4 Sep 2014
Permit Number	ACT 015/015
Mine Name	Emery Mine
Company Name	Consolidated Coal Company

IMPOUNDMENT IDENTIFICATION

Impoundment Name	Pond 3
Impoundment Number	UPDES Outfall 005
UPDES Permit Number	UT0022616
MSHA ID Number	NA

IMPOUNDMENT INSPECTION

Inspection Date	3 Sep 2014
Inspected by	R.B. White
Reason for Inspection	Annual

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

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

None

Questions a and b are required for an impoundment, which functions as a Sedimentation pond.

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

Design sediment storage volume = 1.14 AF
 Design sediment storage elevation = 5906.5 ft
 60% sediment cleanout volume = 0.68 AF
 60% sediment cleanout elevation = 5905.0 ft

 Approximate average current sediment storage elevation = 5902.7 ft

- b. Principle and emergency spillway elevations.

Spillway elevation = 5907.8 ft

2. 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 including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.

The pond contained no water at the time of the inspection. The overflow consists of a 42-inch diameter riser with two 6-inch diameter side inlets (one with its invert located 15.5 inches below the top of the riser and the other with its invert 58 inches below the top of the riser). The riser outlet invert is located 69 inches below the top of the riser. There were no signs of recent water on the inside of the riser, indicating that the pond has not recently filled to this elevation. No signs of instability were observed, including on the steep, natural outslope on the north embankment.

3. Field Evaluation.

Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation 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 pond appears to be functioning as designed.

QUALIFICATION 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 designs 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 and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Richard Fowler Date: 4 Sep 2014

CERTIFIED REPORT

IMPOUNDMENT EVALUATION

If you answer NO to these questions, please explain under comments

- | | YES | NO |
|--|-------------------------------------|--------------------------|
| 1. Is impoundment designed and constructed in accordance with the approved plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Is impoundment free of instability, structural weakness, or any other hazardous conditions? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

COMMENTS/ OTHER INFORMATION

The pond appears to be functioning as designed and is adequate for continued use.

CERTIFICATION STATEMENT:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify 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 designs 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 in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering Group, LLC

Full Name and Title

Signature: Richard B. White Date 4 Sep 2014

P.E. Number & State 168246, UT

[P.E. Cert. Stamp]



*To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.*

GENERAL INFORMATION

Report Date	4 Sep 2014
Permit Number	ACT 015/015
Mine Name	Emery Mine
Company Name	Consolidated Coal Company

IMPOUNDMENT IDENTIFICATION

Impoundment Name	Pond 5
Impoundment Number	UPDES Outfall 007
UPDES Permit Number	UT0022616
MSHA ID Number	NA

IMPOUNDMENT INSPECTION

Inspection Date	3 Sep 2014
Inspected by	R.B. White
Reason for Inspection	Annual

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

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

The HDPE inlet culverts have been cut where they protrude from the interior pond slope to avoid future degradation of the material. A corrugated HDPE liner has been placed on this slope at the middle inlet to direct the flow of water into the pond. Riprap has been placed at the outlet from this liner to minimize erosion of the pond bottom at the inlet. Some of this riprap has been moved by the force of the water. All sediment eroded at the discharge point will accumulate within the pond.

Questions a and b are required for an impoundment, which functions as a Sedimentation pond.

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

Design sediment storage volume = 1.13 AF
 Design sediment storage elevation = 5944.6 ft
 60% sediment cleanout volume = 0.68 AF
 60% sediment cleanout elevation = 5943.8 ft

Approximate average current sediment storage elevation = 5943.1 ft

- b. Principle and emergency spillway elevations.

Spillway elevation = 5949.2 ft

2. 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 including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.

This pond has four 24-inch diameter inlet culverts (one CMP and three HDPE). The pond contained 3 to 4 feet of water at the time of the inspection. The open-channel outlet spillway shows no sign of discharge or erosion. The pond embankment shows no signs of instability.

3. Field Evaluation.

Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation 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

No stability or operational concerns were noted during the inspection.

QUALIFICATION 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 designs 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 and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Tiland Sweta Date: 4 Sep 2014

CERTIFIED REPORT

IMPOUNDMENT EVALUATION

If you answer NO to these questions, please explain under comments

	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is impoundment free of instability, structural weakness, or any other hazardous conditions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMMENTS/ OTHER INFORMATION

The pond appears to be functioning as designed.

CERTIFICATION STATEMENT:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify 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 designs 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 in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering Group, LLC

Full Name and Title

Signature: Richard B. White Date 4 Sep 2014

P.E. Number & State 168246, UT

[P.E. Cert. Stamp]



*To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.*

GENERAL INFORMATION

Report Date	<u>4 Sep 2014</u>
Permit Number	<u>ACT 015/015</u>
Mine Name	<u>Emery Mine</u>
Company Name	<u>Consolidated Coal Company</u>

IMPOUNDMENT IDENTIFICATION

Impoundment Name	<u>Pond 6</u>
Impoundment Number	<u>UPDES Outfall 003</u>
UPDES Permit Number	<u>UT0022616</u>
MSHA ID Number	<u>NA</u>

IMPOUNDMENT INSPECTION

Inspection Date	<u>3 Sep 2014</u>
Inspected by	<u>R.B. White</u>
Reason for Inspection	<u>Annual</u>

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

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

It appears that the pond is operating as designed, with no instability concerns observed.

Questions a and b are required for an impoundment, which functions as a Sedimentation pond.

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

Design sediment storage volume = 7.5 AF
 60% sediment cleanout volume = 4.5 AF
 Sediment cleanout elevation = 6012.5 ft

Average elevation of sediment in pond bottom = 6010.3 (based on August 2010 survey)

- b. Principle and emergency spillway elevations.

Spillway elevation = 6016.0 ft

2. 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 including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.

At the time of the inspection, the flow depth in the 6-inch Parshall flume at the pond outlet was 0.30 ft, representing a discharge of 0.31 cfs. The pond elevation was approximately 1.75 inches above the spillway invert at the time of the inspection.

3. Field Evaluation.

Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation 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 pond appears to be operating as designed.

QUALIFICATION 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 designs 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 and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Richard J. Swler Date: 4 Sep 2014

CERTIFIED REPORT

IMPOUNDMENT EVALUATION

If you answer NO to these questions, please explain under comments

- | | YES | NO |
|--|-------------------------------------|--------------------------|
| 1. Is impoundment designed and constructed in accordance with the approved plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Is impoundment free of instability, structural weakness, or any other hazardous conditions? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

COMMENTS/ OTHER INFORMATION

Consol operates this pond to settle sediment from mine discharge water.

CERTIFICATION STATEMENT:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify 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 designs 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 in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering Group, LLC

Full Name and Title

Signature: Richard B. White Date 4 Sep 2014

P.E. Number & State 168246, UT

[P.E. Cert. Stamp]



*To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.*

GENERAL INFORMATION

Report Date	4 Sep 2014
Permit Number	ACT 015/015
Mine Name	Emery Mine
Company Name	Consolidated Coal Company

IMPOUNDMENT IDENTIFICATION

Impoundment Name	Pond 8
Impoundment Number	UPDES Outfall 006
UPDES Permit Number	UT0022616
MSHA ID Number	NA

IMPOUNDMENT INSPECTION

Inspection Date	3 Sep 2014
Inspected by	R.B. White
Reason for Inspection	Annual

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

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

The level of flow in Quitchupah Creek, adjacent to the pond, is occasionally high enough to nearly flow over the south embankment of Pond 8 and into the pond. Nonetheless, the embankment remains stable with no significant erosion of the outslope adjacent to the creek. No signs of instability were observed elsewhere within the pond.

Questions a and b are required for an impoundment, which functions as a Sedimentation pond.

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

Design sediment storage volume = 2.00 AF
 Design sediment storage elevation = 5910.0 ft
 60% sediment cleanout volume = 1.35 AF
 60% sediment cleanout elevation = 5909.0 ft
 Approximate average current sediment storage elevation = 5907.0 ft

- b. Principle and emergency spillway elevations.

This impoundment is designed as a total containment pond without a spillway. The pond can contain the total design sediment volume plus the runoff from the 100-yr, 6-hr storm and still have a freeboard of 3.4 feet. The invert elevation on the dewatering pipe is set at 5910.0 ft.

2. 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 including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.

The pond inlets appear to be adequate. The pond contained no water at the time of the inspection. No substantial amount of sediment has accumulated in the pond.

3. Field Evaluation.

Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation 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 pond appears to be operating as designed.

QUALIFICATION 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 designs 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 and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Tucland JSW Date: 4 Sep 2014

CERTIFIED REPORT

IMPOUNDMENT EVALUATION

If you answer NO to these questions, please explain under comments

	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is impoundment free of instability, structural weakness, or any other hazardous conditions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMMENTS/ OTHER INFORMATION

The pond appears to be functioning as designed and is adequate for continued use.

CERTIFICATION STATEMENT:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify 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 designs 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 in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering Group, LLC

Full Name and Title

Signature: Richard B White Date 4 Sep 2014

P.E. Number & State 168246, UT

[P.E. Cert. Stamp]



*To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.*

GENERAL INFORMATION

Report Date	<u>4 Sep 2014</u>
Permit Number	<u>ACT 015/015</u>
Mine Name	<u>Emery Mine</u>
Company Name	<u>Consolidated Coal Company</u>

IMPOUNDMENT IDENTIFICATION

Impoundment Name	<u>Pond 9</u>
Impoundment Number	<u>UPDES Outfall 009</u>
UPDES Permit Number	<u>UT0022616</u>
MSHA ID Number	<u>NA</u>

IMPOUNDMENT INSPECTION

Inspection Date	<u>3 Sep 2014</u>
Inspected by	<u>R.B. White</u>
Reason for Inspection	<u>Annual</u>

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

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

None

Questions a and b are required for an impoundment, which functions as a Sedimentation pond.

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

Design sediment storage volume = 0.32 AF
Design sediment storage elevation = 6052.5 ft
60% sediment cleanout volume = 0.18 AF
60% sediment cleanout elevation = 6051.7 ft

No substantial amount of sediment in the pond at the time of the inspection.

- b. Principle and emergency spillway elevations.

Spillway elevation = 6054.6 ft

2. 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 including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.

The pond was recently cleaned out. No signs of erosion were noted at the pond outlet or the spillway. No signs of instability were observed. The pond contained no water at the time of the inspection.

3. Field Evaluation.

Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation 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

No stability concerns were noted.

QUALIFICATION 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 designs 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 and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Richard B. Walter Date: 4 Sep 2014

CERTIFIED REPORT

IMPOUNDMENT EVALUATION

If you answer NO to these questions, please explain under comments

- | | YES | NO |
|--|-------------------------------------|--------------------------|
| 1. Is impoundment designed and constructed in accordance with the approved plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Is impoundment free of instability, structural weakness, or any other hazardous conditions? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

COMMENTS/ OTHER INFORMATION

The pond appears to be functioning as designed and is adequate for continued use.

CERTIFICATION STATEMENT:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify 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 designs 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 in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering Group, LLC

Full Name and Title

Signature: *Richard B. White* Date *4 Sep 2014*

P.E. Number & State 168246, UT

[P.E. Cert. Stamp]



Appendix A-2

Quarterly Coal Refuse Inspections

INSPECTION FORM

COAL REFUSE PILES AND COAL WASTE IMPOUNDMENTS

Name Quinn Healy Title PE

Date 4/20/2014 Date last inspected 11/24/2013

Site Name Emery Temp. Coal Stockpile Mine Name Emery

Refuse Facility ID # 1211-UT-09-00079-01

Refuse piles---Part A only
 Impoundments---Part A and Part B

Part A

- | | | | | |
|---|-------------------------------------|-----|-------------------------------------|----|
| 1. Foundation preparation (vegetation, topsoil removal?)----- | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 2. Lift Thickness (inches)----- | | | | |
| 3. Compaction (4 to 6 complete passes)----- | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 4. Burning* (specify extent and location)----- | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| 5. Angle of Slope (degrees)----- | | | <u>3:1</u> | |
| 6. Seepage* (specify location, color, & appr. volume)----- | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| 7. Cracks or scarps* (location, size)----- | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| 8. Major erosion problems* (location and extent)----- | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| 9. Water impounding against toe* ----- | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |

Part B

- | | | | | |
|--|--------------------------|-----|--------------------------|----|
| 10. Embankment freeboard (feet)----- | | | | |
| 11. <u> </u> Increase <u> </u> Decrease in water level (feet)----- | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 12. Sumps or sinkholes in slurry surface----- | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 13. Clogging* (pipes, ditches, spillway)----- | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 14. Trash racks clear and in place----- | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |

* Adverse conditions noted in these items should be described (extent, location, volume, etc.) in the space provided. Major adverse changes could cause instability.

Inspection
Category

Comments



I inspected the refuse pile on 4/20/2014.

The slopes are compacted and stable. The site drainage impoundment ditches are intact. There are no visible instabilities or other hazardous conditions.

INSPECTION FORM

COAL REFUSE PILES AND COAL WASTE IMPOUNDMENTS

Name Quinn Healy Title PE

Date 6/21/2014 Date last inspected 4/20/2014

Site Name Emery Temp. Coal Stockpile Mine Name Emery

Refuse Facility ID # 1211-UT-09-00079-01

Refuse piles---Part A only
Impoundments---Part A and Part B

Part A

- | | | | |
|--|-----|---|--|
| 1. Foundation preparation (vegetation, topsoil removal?) | --- | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Lift Thickness (inches) | --- | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Compaction (4 to 6 complete passes) | --- | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Burning* (specify extent and location) | --- | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 5. Angle of Slope (degrees) | --- | <u>3:1</u> | <input type="checkbox"/> No |
| 6. Seepage* (specify location, color, & appr. volume) | --- | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 7. Cracks or scarps* (location, size) | --- | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 8. Major erosion problems* (location and extent) | --- | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 9. Water impounding against toe* | --- | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

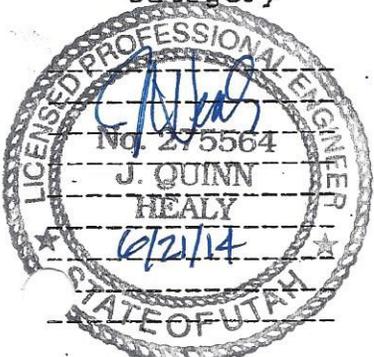
Part B

- | | | | |
|---|-----|------------------------------|-----------------------------|
| 10. Embankment* freeboard (feet) | --- | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 11. <u> </u> Increase <u> </u> Decrease in water level (feet) | --- | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 12. Sumps or sinkholes in slurry surface | --- | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 13. Clogging* (pipes, ditches, spillway) | --- | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 14. Trash racks clear and in place | --- | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

* Adverse conditions noted in these items should be described (extent, location, volume, etc.) in the space provided. Major adverse changes could cause instability.

Inspection
Category

Comments



I inspected the refuse pile on 6/21/2014

The slopes are compacted and stable. The site drainage
impoundment ditches are intact. There are no visible
instabilities or other hazardous conditions.

INSPECTION FORM

COAL REFUSE PILES AND COAL WASTE IMPOUNDMENTS

Name Quinn Healy Title PE

Date 8/11/2014 Date last inspected 6/21/2014

Site Name Emery Temp. Coal Stockpile Mine Name Emery

Refuse Facility ID # 1211-UT-09-00079-01

Refuse piles---Part A only
 Impoundments---Part A and Part B

Part A

- | | | | | |
|---|-------------------------------------|-----|-------------------------------------|-----|
| 1. Foundation preparation (vegetation, topsoil removal?)----- | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 2. Lift Thickness (inches)----- | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 3. Compaction (4 to 6 complete passes)----- | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| 4. Burning* (specify extent and location)----- | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| 5. Angle of Slope (degrees)----- | <input type="checkbox"/> | 3:1 | <input type="checkbox"/> | --- |
| 6. Seepage* (specify location, color, & appr. volume)----- | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| 7. Cracks or scarps* (location, size)----- | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| 8. Major erosion problems* (location and extent)----- | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| 9. Water impounding against toe* ----- | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |

Part B

- | | | | | |
|--|--------------------------|-----|--------------------------|----|
| 10. Embankment freeboard (feet)----- | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 11. <u> </u> Increase <u> </u> Decrease in water level (feet)----- | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 12. Sumps or sinkholes in slurry surface----- | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 13. Clogging* (pipes, ditches, spillway)----- | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 14. Trash racks clear and in place----- | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |

* Adverse conditions noted in these items should be described (extent, location, volume, etc.) in the space provided. Major adverse changes could cause instability.

Inspection
Category

Comments



I inspected the refuse pile on 8/11/2014
 The slopes are compacted and stable. The site drainage impoundment ditches are intact. There are no visible instabilities or other hazardous conditions.

INSPECTION FORM

COAL REFUSE PILES AND COAL WASTE IMPOUNDMENTS

Name Quinn Healy Title PE

Date 10/25/2014 Date last inspected 8/11/2014

Site Name Emery Temp. Coal Stockpile Mine Name Emery

Refuse Facility ID # 1211-UT-09-00079-01

Refuse piles---Part A only
 Impoundments---Part A and Part B

Part A

- | | | |
|---|---|--|
| 1. Foundation preparation (vegetation, topsoil removal?)----- | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Lift Thickness (inches)----- | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Compaction (4 to 6 complete passes)----- | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 4. Burning* (specify extent and location)----- | 3:1 | |
| 5. Angle of Slope (degrees)----- | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 6. Seepage* (specify location, color, & appr. volume)----- | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 7. Cracks or scarps* (location, size)----- | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 8. Major erosion problems* (location and extent)----- | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 9. Water impounding against toe* ----- | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

Part B

- | | | |
|--|------------------------------|-----------------------------|
| 10. Embankment freeboard (feet)----- | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 11. <u> </u> Increase <u> </u> Decrease in water level (feet)----- | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 12. Sumps or sinkholes in slurry surface----- | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 13. Clogging* (pipes, ditches, spillway)----- | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 14. Trash racks clear and in place----- | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

* Adverse conditions noted in these items should be described (extent, location, volume, etc.) in the space provided. Major adverse changes could cause instability.

Inspection
Category

Comments



I inspected the refuse pile on 10/25/2014

The slopes are compacted and stable. The site drainage
impoundment ditches are intact. There are no visible
instabilities or other hazardous conditions.

Appendix B-2

Annual Subsidence Survey

**Consolidation Coal Co.
November 2014 - Annual Subsidence Survey**

NAD 1983, Utah Central, US Survey feet
NAVD 1988

MEASURED POINTS

POINT NAME	NORTHING	EASTING	PREVIOUS ELEVATION	Nov. 2007 ELEVATION	Nov. 2008 ELEVATION	Nov. 2009 ELEVATION	Dec. 2010 ELEVATION	Dec. 2011 ELEVATION	Dec. 2012 ELEVATION	Nov. 2013 ELEVATION	Nov. 2014 ELEVATION
			ADJUSTED								
			OCT. 06 ELEV.								
H-1	6758256.55	1713035.05	6082.81	6082.74	6082.88	6082.87	6082.94	6082.89	6082.87	6082.88	6082.87
36	6756805.63	1713716.02	6041.05	6040.79	6041.00	6040.89	6040.95	6040.91	6040.92	6040.92	6040.93
SMH	6755882.85	1712049.12	6057.67	6057.32	6057.61	6057.52	6057.59	6057.56	6057.54	6057.52	6057.52
90-1	6755171.22	1712000.26	6037.91	6037.45	6037.70	6037.63	6037.66	6037.69	6037.67	6037.67	6037.69
90-2	6755593.14	1712304.86	6053.83	6053.39	6053.64	6053.58	6053.63	6053.55	6053.56	6053.55	6053.56
35	6761558.54	1711229.20	6106.36	6106.67	6106.80		6106.92	6106.76	6106.77	6106.78	6106.76
83-1	6759093.54	1713116.69	6065.51	6065.46	6065.64	6065.58	6065.62	6065.60	6065.59	6065.59	6065.61
86-1	6757857.39	1706660.25	6003.40	6003.59	6003.84	6003.86	6003.93	6003.79	6003.77	6003.77	6003.79
86-2	6758652.96	1705551.95	6040.48	6040.76	6040.91	6040.93	6040.97	6040.76	6040.73	6040.72	6040.74
86-4	6760837.61	1702889.91	6078.44	6079.20	6079.40	6079.40	6079.42	6079.23	6079.24	6079.25	6079.21
86-5	6760155.85	1704278.88	6163.45	6163.97	6164.22	6164.21	6164.25	6164.10	6164.05	6164.07	6164.04
86-13	6759176.02	1704251.23	6036.06	6036.50	6036.65	6036.63	6036.68	6036.44	6036.41	6036.41	6036.42
88-2	6759134.95	1703887.62	6016.57	6017.01	6017.17	6017.18	6017.20	6016.95	6016.97	6016.95	6016.96
88-3	6758692.06	1704300.65	6014.34	6014.83	DESTROYED						
88-4	6758006.11	1704828.28	5988.26	5988.56	5988.71	5988.73	5988.72	5988.51	5988.51	5988.52	5988.50
88-5	6757972.48	1705259.42	5994.61	5994.92	DESTROYED						
88-6	6757177.64	1705879.38	5975.05	5975.24	5975.39	5975.42	5975.56	5975.48	5975.47	5975.48	5975.50
89-2	6762836.20	1705604.61	6200.08	6200.84	6200.98	6200.95	6201.03	6200.81	6200.76	6200.74	6200.74
89-3	6761091.78	1704846.48	6170.31	6170.90	6171.13	6171.11	6171.10	6171.17	6171.17	6171.18	6171.16
89-4	6762473.44	1706321.62	6184.86	6185.60	6185.69	6185.77	6185.81	6185.59	6185.52	6185.52	6185.54
90-03	6756435.50	1712926.84	6037.17	6036.93	6037.13	6037.04	6037.04	6037.12	6037.10	6037.10	6037.08
90-04	6757182.04	1713517.48	6031.02	6030.74	6030.89	6030.76	6030.89	6030.91	6030.89	6030.88	6030.87
90-4	6756652.76	1713321.91	6043.29	6043.02	6043.27	6043.16	6043.17	6043.20	6043.18	6043.19	6043.20
90-5	6757394.42	1713688.58	6036.66	6036.41	6036.56	6036.50	6036.55	6036.58	6036.55	6036.57	6036.54
90-6	6758779.41	1714726.46	6050.72	6050.62	6050.82	6050.78	6050.84	6050.88	6050.89	6050.91	6050.88
SM-C	6758743.87	1714106.30	6051.44	6051.38	6051.64	6051.53	6051.57	6051.54	6051.57	6051.61	6051.59
91-01	6756669.94	1712000.00	6052.23	6052.01	6052.25	6052.67	6052.20	6052.22	6052.19	6052.20	6052.21
91-02	6757585.42	1713036.14	6051.46	6051.28	6051.41	6051.38	6051.44	6051.41	6051.42	6051.40	6051.41
91-03	6758030.88	1713361.38	6055.63	6055.45	6055.56	6055.61	6055.62	6055.63	6055.63	6055.65	6055.62
91-04	6758791.86	1713935.17	6051.81	6051.72	6051.91	6051.82	6051.79	6051.81	6051.80	6051.79	6051.78
87-1	6757159.14	1706351.37	5990.51	5990.59	5990.74	5990.81	5990.90	5990.70	5990.70	5990.71	5990.69
97-1	6759589.84	1709488.21	6117.57	6117.83	6117.98	6117.97	6117.97	6117.95	6117.96	6117.98	6117.95
97-2	6758894.76	1709132.54	6116.53	6116.66	6116.84	6116.87	6116.87	6116.87	6116.88	6116.88	6116.86
E	6759462.66	1712234.87	6082.64	6082.75	6082.89	6082.95	6082.97	6082.94	6082.90	6082.91	6082.91
E1/4 28	6758451.40	1713666.32	6054.53	6054.45	6054.56	6054.52	6054.52	6054.53	6054.52	6054.56	6054.55
H-6	6758064.50	1711094.12	6095.91	6095.93	6096.06	6096.02	6096.04	6096.01	6096.01	6096.02	6096.03
W	6756275.89	1705674.96	5958.82	5958.80	5958.94	DESTROYED	DESTROYED	DESTROYED	DESTROYED	DESTROYED	DESTROYED
L	6754880.54	1705574.55	5950.19	5950.06	5950.29	5950.28	5950.21	5950.28	5950.24	5950.23	5950.23
N	6755536.21	1706165.54	5950.23	5950.16	5950.36	5950.39	5950.33	5950.36	5950.39	5950.41	5950.38
SMK-2	6758755.59	1710054.13	6102.92	6102.95	6103.12	6103.13	6103.13	6103.12	6103.13	6103.14	6103.12
SMK-3	6758965.95	1711660.45	6082.15	6082.18	6082.28	6082.27	6082.34	6082.32	6082.35	6082.36	6082.34
			11-2006 ELEVATION								
6-01	6761645.96	1710904.27	6110.04	6110.09	6110.27	6110.27	6110.33	6110.12	6110.13	6110.13	6110.11
6-02	6761002.37	1710059.15	6116.61	6116.60	6116.79	6116.88	6116.81	6116.57	6116.57	6116.58	6116.59
6-03	6760565.27	1709554.45	6117.32	6117.33	6117.55	6117.69	6117.57	6117.56	6117.52	6117.54	6117.52
6-04	6758380.42	1707028.80	6023.68	6023.77	6019.63	6019.51	6019.52	6019.35	6019.31	6019.34	6019.28
6-05	6758719.90	1706656.21	6030.59	6030.68	6027.85	6027.67	6027.58	6027.46	6027.41	6027.37	6027.35
6-06	6759875.49	1705933.25	6143.18	6142.91	6142.85	6142.71	6142.70	6142.56	6142.58	6142.56	6142.57
6-07	6760863.83	1706266.65	6170.20	6169.65	DESTROYED						
6-08	6759343.46	1706993.37	6065.73	6065.23	6064.69	6064.36	6064.22	6063.99	6063.96	6064.00	6064.01
6-09	6760017.86	1706164.92	6141.75	6139.26	6139.27	6139.11	6139.04	6138.90	6138.88	6138.92	6138.87
6-10	6760383.96	1705795.14	6150.80	6148.22	6148.25	6148.13	6148.12	6147.98	6147.97	6147.97	6147.95
6-11	6759493.36	1715652.26	6056.86	6056.87	6057.03	6057.01	6057.04	6057.05	6057.05	6057.04	6057.03
6-12	6760098.03	1714699.42	6076.19	6076.15	6076.39	6076.35	6076.40	6076.37	6076.38	6076.38	6076.39
6-13	6760891.31	1713698.10	6090.16	6090.17	6090.36	6090.35	6090.33	6090.36	6090.35	6090.32	6090.35
6-14	6761793.53	1712734.97	6097.29	6097.30	6097.48	6097.43	6097.38	6097.40	6097.39	6097.38	6097.39
6-15	6762265.78	1712329.15	6107.03	6107.08	6107.19	DESTROYED	DESTROYED	DESTROYED	DESTROYED	DESTROYED	DESTROYED
6-16	6759657.74	1716089.80	6059.39	6059.44	6059.57	6059.56	6059.59	6059.61	6059.62	6059.66	6059.63
6-17	6761139.50	1717065.30	6071.56	6071.66	6069.61	6069.11	6068.97	6068.99	6068.97	6068.94	6068.96
6-18	6761947.48	1717858.85	6081.27	6081.34	6081.87	6081.54	6081.46	6081.49	6081.48	6081.48	6081.47
6-19	6762448.91	1718246.74	6085.90	6085.96	6086.59	6086.17	6086.11	6086.05	6086.01	6086.02	6086.00
6-20	6762741.05	1718538.73	6090.48	6090.52	6091.33	6090.73	6090.64	6090.57	6090.56	6090.60	6090.58
6-21	6760438.20	1716180.06	6070.28	6070.30	6070.37	6070.38	6070.50	6070.53	6070.53	6070.52	6070.52
6-22	6761333.56	1714916.16	6090.69	6090.68	6090.93	6090.92	6090.85	6090.92	6090.90	6090.89	6090.91
6-23	6762101.13	1714019.00	6111.33	6111.31	6111.58	6111.52	6111.45	6111.50	6111.49	6111.49	6111.49
6-24	6761067.04	1716301.20	6080.76	6080.80	6081.42	6079.91	6078.15	6078.22	6078.23	6078.24	6078.25
6-25	6762329.01	1714637.51	6106.02	6106.01	6106.23	6106.28	6106.13	6106.32	6106.30	6106.30	6106.33
6-27	6764041.79	1715533.49	6114.65	6114.65	6114.79	6114.81	6114.83	6114.85	6114.87	6114.86	6114.84
6-29	6762703.00	1712897.66	6141.81	6141.85	6142.02	6142.00	6141.99	6141.97	6141.96	6141.99	6141.95
6-30	6763349.98	1713654.71	6131.17	6131.20	6131.41	6131.32	6131.29	6131.31	6131.27	6131.24	6131.25
6-34	6760357.41	1706945.65	6148.20	6148.07	6148.20	6147.88	6147.83	6147.69	6147.67	6147.66	6147.68
86-11	6760330.48	1707019.83	6153.72	6153.62	6153.73	6153.39	6153.37	6153.20	6153.18	6153.21	6153.23
86-8	6762484.75	1713660.38	6125.27	6125.27	6125.43	6125.43	6125.43	6125.46	6125.45	6125.47	6

Appendix B-2a
Monthly Subsidence
Reports

**EMERY MINE
SUBSIDENCE INSPECTION REPORT**

This report summarizes the results of subsidence inspections conducted at the Emery Mine in Emery, Utah during the period of January and February 2014. The area of the observed subsidence is in the general vicinity of 38° 52' 58" North Latitude and 111° 13' 11" West Longitude over the northeastern portion of the 00 North panel.

January 2014 Inspection

On January 29, 2014, Russel Jensen of Consol Energy walked around all known depressions over the 00 North mine panel. He photographed all staked subsidence areas and did not observe any indication of new movement, settlement, or cracks. He also walked area outside of the known subsidence depressions and did not see any new depressions or cracks.

February 2014 Inspection

On February 26, 2014, Russel Jensen of Consol Energy walked the area of 6 depressions over the 00 North panel. He observed no recent movement or evidence of subsidence. He also walked the area around the known subsidence depressions and noticed no new depressions or cracks.

Comparative Photographs

Photographs of the six depressions are provided in Appendix A. Side-by-side photographs are taken from the same general locations in September 2013 (prior to repair) as well as January and February 2014, allowing comparisons to be made between pre- and post-repair dates. No substantial changes have been observed since the subsidence cracks were repaired in October 2013.

ATTACHMENT A

Comparative Photographs

Depression #1 - September 2013



Depression #1 - January 2014



Depression #1 - February 2014



Depression #1 - September 2013



Depression #1 - January 2014



Depression #1 - February 2014



Depression #2 - September 2013



Depression #2 - January 2014



Depression #2 - February 2014



Depression #2 - September 2013



Depression #2 - January 2014



Depression #2 - February 2014



Depression #3 - September 2013



Depression #3 - January 2014



Depression #3 - February 2014



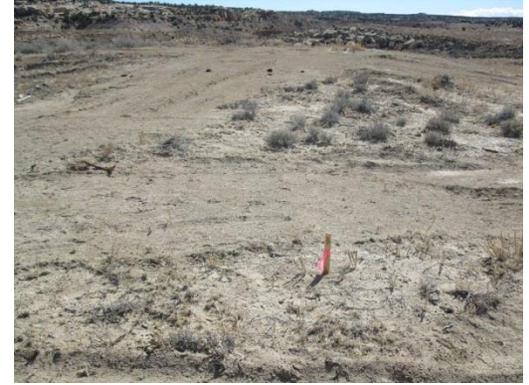
Depression #3 - September 2013



Depression #3 - January 2014



Depression #3 - February 2014



Depression #4 - September 2013



Depression #4 - January 2014



Depression #4 - February 2014



Depression #4 - September 2013



Depression #4 - January 2014



Depression #4 - February 2014



Depression #5 - September 2013



Depression #5 - January 2014



Depression #5 - February 2014



Depression #5 - September 2013



Depression #5 - January 2014



Depression #5 - February 2014



Depression #6 - September 2013



Depression #6 - January 2014



Depression #6 - February 2014



Depression #6 - September 2013



Depression #6 - January 2014



Depression #6 - February 2014



**EMERY MINE
SUBSIDENCE INSPECTION REPORT
MARCH 2014**

On March 28, 2014, Russel Jensen of Consol Energy walked the area over the 00 North section of the Emery Mine. No new subsidence cracks or additional movement were observed. Mr. Jensen photographed all staked subsidence locations. Copies of these photographs are provided in Attachment A.

ATTACHMENT A

Photographs of 00 North Subsidence Depressions
March 28, 2014

Depression #1 - March 28, 2014



Depression #2 - March 28, 2014



Depression #3 - March 28, 2014



Depression #4 - March 28, 2014



Depression #5 - March 28, 2014



Depression #6 - March 28, 2014



**EMERY MINE
SUBSIDENCE INSPECTION REPORT
APRIL 2014**

On April 29, 2014, Russel Jensen of Consol Energy walked the area of six known subsidence depressions and photographed all staked areas. No new movement or new cracks were observed. He also walked the entire area around the outside of the known subsidence areas and observed no new depressions or cracks. Copies of the photographs are provided in Attachment A.

ATTACHMENT A

Photographs of 00 North Subsidence Depressions
April 29, 2014

Depression #1 - April 29, 2014



Depression #2 - April 29, 2014



Depression #3 - April 29, 2014



Depression #4 - April 29, 2014



Depression #5 - April 29, 2014



Depression #6 - April 29, 2014



**EMERY MINE
SUBSIDENCE INSPECTION REPORT
MAY 2014**

On May 30, 2014, Russel Jensen of Consol Energy walked the area of six known subsidence depressions over 00 North and photographed all staked areas. He observed no new cracks. He also walked the surrounding area and observed no new depressions or cracks. Copies of the photographs are provided in Attachment A.

ATTACHMENT A

Photographs of 00 North Subsidence Depressions
May 30, 2014

Depression #1 - May 30, 2014



Depression #2 - May 30, 2014



Depression #3 - May 30, 2014



Depression #4 - May 30, 2014



Depression #5 - May 30, 2014



Depression #6 - May 30, 2014



**EMERY MINE
SUBSIDENCE INSPECTION REPORT
MAY 2014**

On June 26, 2014, Russel Jensen of Consol Energy walked the area of six known subsidence depressions over 00 North and photographed all staked areas. He observed no new cracks. He also walked the surrounding area and observed no new depressions or cracks. Copies of the photographs are provided in Attachment A.

ATTACHMENT A

Photographs of 00 North Subsidence Depressions
June 25, 2014

Depression #1 - June 25, 2014



Depression #2 - June 25, 2014



Depression #3 - June 25, 2014



Depression #4 - June 25, 2014



Depression #5 - June 25, 2014



Depression #6 - June 25, 2014



**EMERY MINE
SUBSIDENCE INSPECTION REPORT
MAY 2014**

On July 25, 2014, Russel Jensen of Consol Energy walked the area of the six known subsidence depressions over 00 North and photographed all staked areas. He observed no new cracks. He also walked the surrounding area and observed no new depressions, cracks, or damage. Copies of the photographs are provided in Attachment A.

ATTACHMENT A

Photographs of 00 North Subsidence Depressions
July 25, 2014

Depression #1 - July 25, 2014



Depression #2 - July 25, 2014



Depression #3 - July 25, 2014



Depression #4 - July 25, 2014



Depression #5 - July 25, 2014



Depression #6 - July 25, 2014



**EMERY MINE
SUBSIDENCE INSPECTION REPORT
AUGUST 2014**

On August 25, 2014, Russel Jensen of Consol Energy walked the area of the six known subsidence depressions over 00 North and photographed all staked areas. He observed no new cracks or damage. He also walked the surrounding area and observed no new depressions, cracks, or damage. Copies of the photographs are provided in Attachment A.

ATTACHMENT A

Photographs of 00 North Subsidence Depressions
August 25, 2014

Depression #1 - August 25, 2014



Depression #2 - August 25, 2014



Depression #3 - August 25, 2014



Depression #4 - August 25, 2014



Depression #5 - August 25, 2014



Depression #6 - August 25, 2014



**EMERY MINE
SUBSIDENCE INSPECTION REPORT
SEPTEMBER 2014**

On September 24, 2014, Russel Jensen of Consol Energy walked the area of the six known subsidence depressions over 00 North and photographed all staked areas. He observed no new cracks or damage from subsidence. He also walked the surrounding area and observed no new depressions, cracks, or damage. Copies of the photographs are provided in Attachment A.

ATTACHMENT A

Photographs of 00 North Subsidence Depressions
September 24, 2014

Depression #1 - September 24, 2014



Depression #2 September 24, 2014



Depression #3 - September 24, 2014



Depression #4 - September 24, 2014



Depression #5 - September 24, 2014



Depression #6 - September 24, 2014



**EMERY MINE
SUBSIDENCE INSPECTION REPORT
OCTOBER 2014**

On October 28, 2014, Russel Jensen of Consol Energy walked the area of the six known subsidence depressions over 00 North and photographed all staked areas. He observed no new cracks or damage from subsidence. He also walked the surrounding area and observed no new depressions, cracks, or damage. Copies of the photographs are provided in Attachment A.

ATTACHMENT A

Photographs of 00 North Subsidence Depressions
October 28, 2014

Depression #1 - October 28, 2014



Depression #2 October 28, 2014



Depression #3 - October 28, 2014



Depression #4 - October 28, 2014



Depression #5 - October 28, 2014



Depression #6 - October 28, 2014



**EMERY MINE
SUBSIDENCE INSPECTION REPORT
NOVEMBER 2014**

On November 25, 2014, Russel Jensen of Consol Energy walked the area of the six known subsidence depressions over 00 North and photographed all staked areas. He observed no new cracks or damage from subsidence. He also walked the surrounding area and observed no new depressions, cracks, or damage. Copies of the photographs are provided in Attachment A.

ATTACHMENT A

Photographs of 00 North Subsidence Depressions
November 25, 2014

Depression #1 - November 25, 2014



Depression #2 November 25, 2014



Depression #3 - November 25, 2014



Depression #4 - November 25, 2014



Depression #5 - November 25, 2014



Depression #6 - November 23, 2014



**EMERY MINE
SUBSIDENCE INSPECTION REPORT
DECEMBER 2014**

On December 24, 2014, Russel Jensen of Consol Energy walked the area of the six known subsidence depressions over 00 North and photographed all staked areas. He observed no new cracks or damage from subsidence. He also walked the surrounding area and observed no new depressions, cracks, damage, or other evidence of new subsidence. Copies of the photographs are provided in Attachment A.

ATTACHMENT A

Photographs of 00 North Subsidence Depressions
December 24, 2014

Depression #1 - December 24, 2014



Depression #2 December 24, 2014



Depression #3 - December 24, 2014



Depression #4 - December 24, 2014



Depression #5 - December 24 2014



Depression #6 - December 24, 2014



Appendix B-3

Bryant (14th West) flows

Emery Mine Panel 14W Bryant Monitoring Summary



Prepared for:
CONSOL Mining Company LLC
1000 Consol Energy Drive
Canonsburg, PA 15317

Prepared by:
JBR Environmental Consultants, Inc., now Stantec
8160 S. Highland Drive
Sandy, Utah 84093
Contact: Karla Knoop
801.943.4144

January 2015

P.O. 4700459954



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Emery Mine Panel 14W Monitoring Summary

1.0 INTRODUCTION

On behalf of CONSOL Mining Company LLC (Consol), JBR Environmental Consultants, Inc., now Stantec (JBR) has performed monthly flow measurements at a surface water monitoring location known as Bryant No. 1 since mid-2007. The site is located on a small drainage in T22S R6E, NE1/4 Section 29. The drainage lies above and essentially parallel to a mine panel known as Panel 14 West. Consol conducted full-extraction mining in this portion of the Emery Mine in late 2007. Due to shallow cover, there was a potential for ground subsidence in the vicinity of the drainage. As a result, Consol committed to frequent hydrologic monitoring before, during, and subsequent to mining Panel 14 West. Results have been submitted to Utah Division of Oil, Gas and Mining (DOG M). This report provides a summary of these data.

2.0 SITE DESCRIPTION

The drainage has been significantly altered by decades of irrigation activities. For example, a breached earthen dam is evident in the drainage's main fork. Though the dam no longer impounds water, it appears to constrict high flows and create a backwater, thus altering the upstream channel morphology. For several hundred feet upstream of the breached dam, a very small channel cuts through what remains of a narrow and essentially flat-bottomed pond feature. Remnants of old piping, valves, and a pump housing are also evident.

While these structural irrigation-related features are no longer functional, the channel itself is still being used to convey return flow from up-gradient flood-irrigated pasture lands to Quitcupah Creek. This results in what appears to be essentially perennial flow through this drainage. Years of sediment accumulation in the former pond area provides substrate for the hydrophytic and phreatophytic vegetation (primarily cattail and salt grasses) that is supported by the irrigation return flow. Downstream of the breached dam, flow continues in a small defined channel with adjacent phreatophytic vegetation before passing through an 18-inch diameter culvert at a road crossing.

3.0 METHODS

Flow measurements were typically made within or immediately downstream of the breach area, where water could be confined for proper flow measurement. During each given monitoring

visit, the most appropriate means of measurement would be determined, depending upon the amount of flow.

During the initial years of monitoring, streamflow would most often be measured using the standard velocity-area method using a Marsh-McBirney Flo-Mate portable velocity meter. When flow cross section was too small to use this method, a portable one-inch modified Parshall flume was typically used. This method provides a small control section that allows a simple depth measurement to be made and a flow rate calculated by the known relationship.

On very rare occasions, discharge was measured by recording the time required to fill a container of known volume. For this method, flow was first condensed via a small earthen dam into a tube to capture the full amount of discharge. Also on rare occasions, flow was estimated by using the float method, wherein average channel cross section was measured, and the time that it would take a small whiffle ball to flow 10 feet downstream was measured. Last, during a few winter month visits, the presence of solid or near solid ice prevented measurements from being made.

4.0 RESULTS AND CONCLUSIONS

The attached table and graph provide the monthly flow measurements that were made throughout the monitoring period. Of note is the seasonality of the discharge, which reflects irrigation releases. Also of note is the marked decrease in flows in the last few years. Irrigation was cut back in 2012 due to a lack of source water. Additionally, little or no irrigation occurred in 2013. In 2014, irrigation was reinstated and the resultant effect on flow rate can be seen in the hydrograph. Based upon the flow measurement data obtained since 2007, and given the current status of the mine operations and the measurement site, monthly monitoring was discontinued after November 2014.

Appendix B-4

Emery Town Well Report

EarthFax Engineering Group, LLC

7324 South Union Park Avenue, Suite 100, Midvale, Utah 84047 • 801.561.1555 • FAX 801.561.1861



EarthFax

January 15, 2015

Kerry Goodballet, P.E.
Director - Permitting Coal Operations
CONSOL Energy, Inc.
1000 CONSOL Energy Drive
Canonsburg, PA 15317-6506

Subject: Emery Town well data

Dear Kerry:

Attached is a summary of the data collected from the Emery Town wells from November 2007 through December 2014. Explanatory notes are provided at the bottom of the spreadsheet and in the comments section on the right-hand side of the spreadsheet to assist in data interpretation.

As indicated, the air line used to collect water level data in 2007 was discovered to be faulty when the pump was pulled from that well in 2010. Thus, I do not consider the 2007 water-level datum to be valid. Furthermore, a new probe was purchased in the first quarter of 2013 and has been used to collect water-level data since that time. Given the consistency of the water levels in 2011 and 2012 as well as those in 2013 and 2014 together with a lack of significant outside influences, it is my opinion that the differences between the earlier and latter water-level data are due to the change in probes rather than an actual change in water levels.

The field specific conductance measurement in June 2014 was substantially higher than has been historically reported. However, the total dissolved solids concentration of that sample was consistent with historic data. Thus, it is my opinion that the field specific conductance datum from June 2014 is not valid.

Accounting for the above factors and additional information presented in the Mining and Reclamation Plan, it is my opinion that mining activity at the Emery Mine has not adversely affected water levels or water quality at the Emery Town wells.

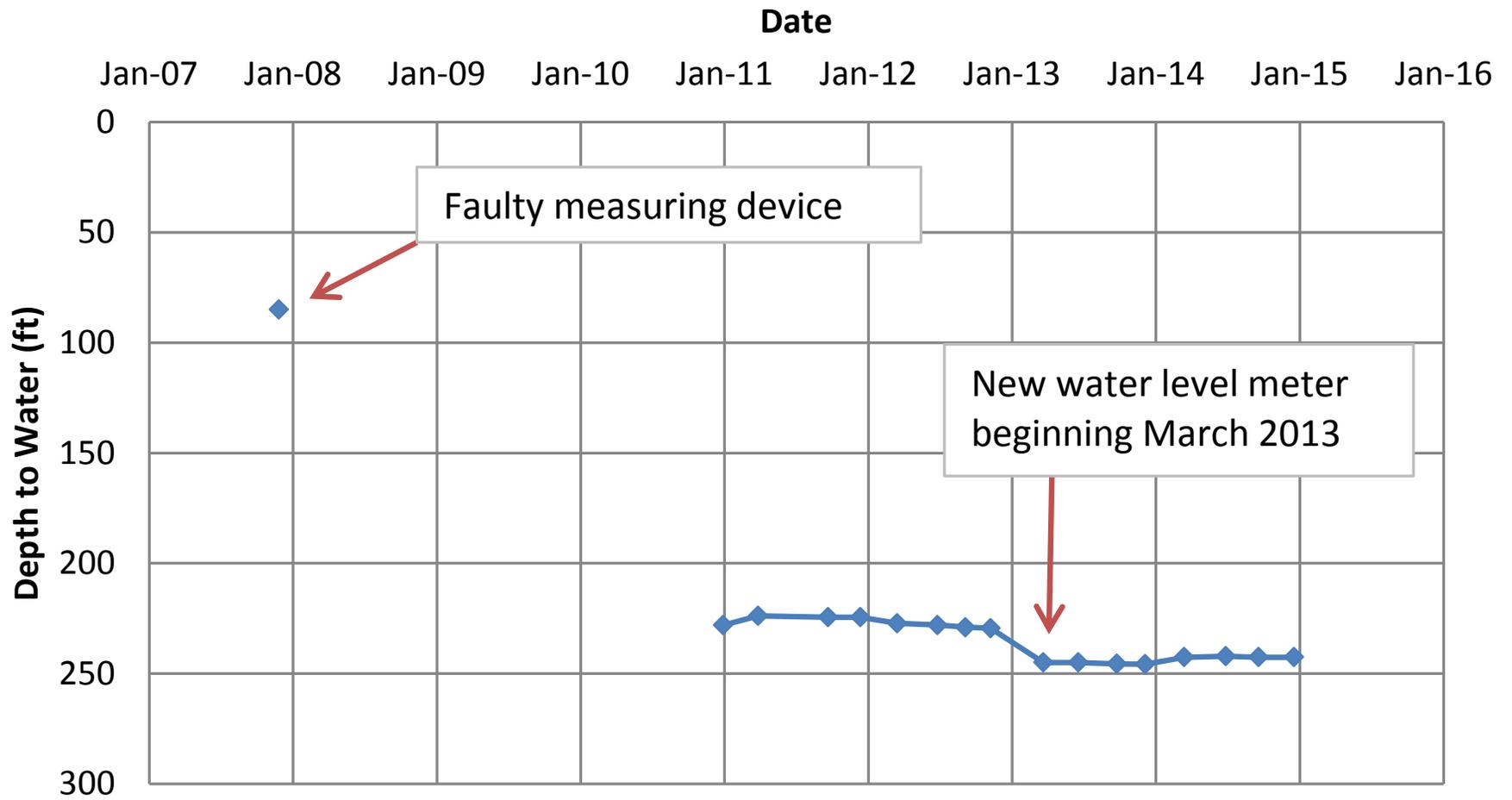
Please let me know if you have any questions regarding this matter.

Sincerely,

Richard B. White, P.E.
President

Enclosure

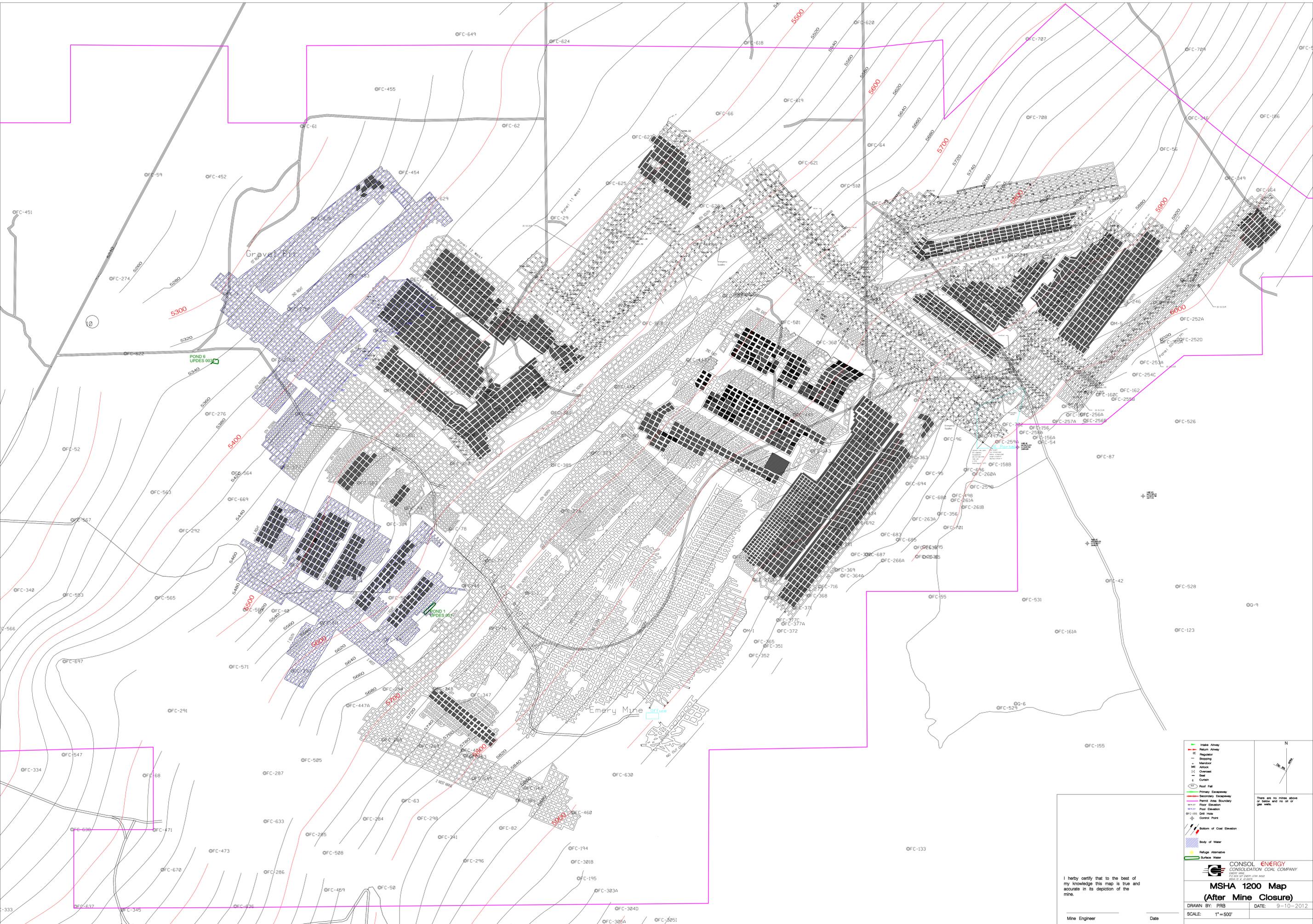
Emery Town Well #2 Water Level Data



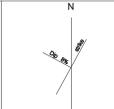
Appendix D-1

2010 Annual Report

and MSHA Maps



	Insole Airway
	Return Airway
	Regulator
	Stopping
	Manhole
	Afters
	Overcast
	Sill
	Curtain
	RF
	Roof Fall
	Primary Escroway
	Secondary Escroway
	Paint Area Boundary
	Floor Elevation
	Pool Elevation
	D/E Hole
	Control Point
	Bottom of Coal Elevation
	Body of Water
	Refuge Alternative
	Surface Water



There are no mines above or below and no oil or gas wells.

I hereby certify that to the best of my knowledge this map is true and accurate in its depiction of the mine.

Mine Engineer _____ Date _____

CONSOL ENERGY
CONSOLIDATION COAL COMPANY

MSHA 1200 Map
(After Mine Closure)

DRAWN BY: PRB DATE: 9-10-2012

SCALE: 1"=500'

