Canyon Fuel Company, LLC
Dugout Canyon Mine
P.O. Box 1029
Wellington, Utah 84542

March 21, 2014

Utah Coal Regulatory Program
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

RE: 2013 Annual Report for Dugout Canyon Mine

To Whom It May Concern:

Please find attached to this e-mail a copy of the Annual Report for 2013 for Dugout Canyon Mine with relevant appendices.

Should you have any questions concerning this submittal, please contact me at (435) 636-2898 or Dave Spillman at (435) 636-2872.

Sincerely,

Robert Jones

cc: Chris Hansen
Dave Spillman

Print Form | Submit by Email | Reset Form

Annual Report

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

GENERAL INFORMATION

Company Name	Canyon Fuel Company, LLC	Mine Name	Dugout Mine
Permit Number	C/007/0039	Permit expiration Date	March 17, 2018
Operator Name	Same	Phone Number	+1 (435) 637-6360
Mailing Address	PO Box 1029	Email	dsplillman@bowieresources.com
City	Wellington		
State	UT	Zip Code	84542

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

OPERATOR COMMENTS

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: ANNUAL RAPTOR SURVEYS
Objective: To obtain baseline data prior to mining disturbances including subsidence of cliff habitat and any surface disturbances (construction, reclamation, or exploration). Conduct follow-up surveys within one year if nests were observed during the baseline surveys and if the nest or raptors could be impacted from mining (subsidence or proximity to surface facilities).
Frequency: Annually
Status: Ongoing
Reports: Annual
Citation: MRP, Volume 2, Chapter 3, Section 322, Page 3-13

Operator Comments

See Appendix D - Confidential.

Reviewer Comments ☐ Met Requirements ☐ Did Not Meet Requirements

Title: SUBSIDENCE MONITORING VISUAL INSPECTIONS
Objective: To check for surface subsidence features.
Frequency: Annually
Status: Ongoing
Reports: Annual
Citation: MRP, Volume 3, Chapter 5, Section 525.100, page 5-29

Operator Comments

See Appendix C.

Reviewer Comments ☐ Met Requirements ☐ Did Not Meet Requirements

Title: WASTE ROCK SAMPLING
Objective: To protect ground and surface water and potentially substantiate lesser cover at the waste rock site.
Frequency: One sample per 5,000 cubic yards taken to the waste rock site. Acid/toxic material to be buried within 30 days and should be compacted, and isolated from water infiltration.
Status: Ongoing. **Please indicate the volumes or tonnage placed during the year into the refuse pile and the remaining capacity in the pile.**
Reports: Annual report, and to be included in RA attachment 5-4.
Citation: MRP, Chapter 5, Section 513.400, Section 528.300, Section 536 and Refuse Pile Amendment Volume, Section 536.200

Operator Comments

See Appendix C.

Reviewer Comments ☐ Met Requirements ☐ Did Not Meet Requirements

Title: SEALING OF WELLS
Objective: Permanent casing and sealing of wells when no longer in use.
Frequency: Once upon termination of use.
Status: N/A
Reports: Report on status of wells
Citation: Chp. 6, Section 631, Chp. 7, Section 765

Operator Comments

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

Reviewer Comments ☐ Did Not Meet Requirements ☐ Met 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: OVERBURDEN SAMPLING AND ANALYSIS
Objective: Generate quality substitute topsoil
Frequency: At Final Reclamation
Status: long term
Reports: at final reclamation
Citation: MRP, Chapter 2, Section 224, Section 233.100, .300, and .400.

Title: NUTRIENTS AND AMENDMENTS
Objective: Establishment of vegetation
Frequency: At final reclamation
Status: Long term
Reports: At final reclamation
Citation: MRP, Chapter 2, Section 243; Refuse Pile Amendment Volume, Section 243.

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:

N/A

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	Appendix C	☒	☐	☐	☒
Mine Map - Gilson Seam	Appendix B	☒	☐	☐	☒
Mine Map - Rock Canyon Seam	Appendix B	☒	☐	☐	☒
		☐	☐	☐	☐
		☐	☐	☐	☐

Reviewer Comments ☐ Met Requirements ☐ Did Not Meet Requirements

Please note that mine maps are not considered confidential as specified by R645-300-124.300.

APPENDIX A

Certified Reports

Excess Spoil Piles

Refuse Piles

Impoundments

As required under R645-301-514

CONTENTS

Refuse Pile Inspections

Impoundment Inspections

*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	January 18, 2013
Permit Number	C/007/039
Company Name	Canyon Fuel Company, LLC - Dugout Canyon Mine

EXCESS SPOIL PILE OR REFUSE PILE IDENTIFICATION

Pile Name	Dugout Canyon Mine Refuse Pile
Pile Number	1211-UT-09-01890-01
MSHA ID Number	42-01890

Inspection Date	January 15, 2013
Inspected By	David G. Spillman
Reason for Inspection	Quarterly Inspection & Certification

Attachment to Report? Yes ☐ No ☒

Field Evaluation

1. Foundation preparation, including the removal of all organic material and topsoil.

The foundation preparation was found to be in accordance with the approved plan.

2. Placement of underdrains and protective filter systems.

N/A

3. Installation of final surface drainage systems

All necessary drainage systems were constructed, functional and well established at the time of the inspection.

4. Placement and compaction of fill materials

Placement and compaction of this refuse appears to have been completed in accordance with the approved plan.

5. Final grading and revegetation of fill.

N/A

6. Appearances of instability, structural weakness, and other hazardous conditions

There was no appearance of instability, structural weakness or other hazardous conditions observed during this inspection.

7. Other comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatment of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period

The site was idle at the time of the inspection.

CERTIFICATION STATEMENT

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 the certified and approved designs for this structure; that the fill structure has been maintained in accordance with the 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 and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By David G. Spillman, Technical Services Manager
Full Name and Title

Signature David G. Spillman Date 1/18/13

P.E. Number and State No. 151610, State of Utah

[Cert. Stamp]

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G.
SPILLMAN
STATE OF UTAH

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE

*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	July 9, 2013
Permit Number	C/007/039
Company Name	Canyon Fuel Company, LLC - Dugout Canyon Mine

EXCESS SPOIL PILE OR REFUSE PILE IDENTIFICATION

Pile Name	Dugout Canyon Mine Refuse Pile
Pile Number	1211-UT-09-01890-01
MSHA ID Number	42-01890

Inspection Date	May 23, 2013
Inspected By	David G. Spillman
Reason for Inspection	Quarterly Inspection & Certification

Attachment to Report? Yes ☐ No ☒

Field Evaluation

1. Foundation preparation, including the removal of all organic material and topsoil.

The foundation preparation was found to be in accordance with the approved plan.

2. Placement of underdrains and protective filter systems.

N/A

3. Installation of final surface drainage systems

All necessary drainage systems were constructed, functional and well established at the time of the inspection.

4. Placement and compaction of fill materials

Placement and compaction of this refuse appears to have been completed in accordance with the approved plan.

5. Final grading and revegetation of fill.

N/A

6. Appearances of instability, structural weakness, and other hazardous conditions

There was no appearance of instability, structural weakness or other hazardous conditions observed during this inspection.

7. Other comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatment of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period

The site was idle at the time of the inspection.

CERTIFICATION STATEMENT

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 the certified and approved designs for this structure; that the fill structure has been maintained in accordance with the 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 and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By David G. Spillman, Technical Services Manager
Full Name and Title

Signature David G. Spillman Date 7/9/13

P.E. Number and State No. 151610, State of Utah

[Cert. Stamp]

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE

*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	October 28, 2013
Permit Number	C/007/039
Company Name	Canyon Fuel Company, LLC - Dugout Canyon Mine

EXCESS SPOIL PILE OR REFUSE PILE IDENTIFICATION

Pile Name	Dugout Canyon Mine Refuse Pile
Pile Number	1211-UT-09-01890-01
MSHA ID Number	42-01890

Inspection Date	September 27, 2013
Inspected By	David G. Spillman
Reason for Inspection	Quarterly Inspection & Certification

Attachment to Report? Yes ☐ No ☒

Field Evaluation

1. Foundation preparation, including the removal of all organic material and topsoil.

The foundation preparation was found to be in accordance with the approved plan.

2. Placement of underdrains and protective filter systems.

N/A

3. Installation of final surface drainage systems

All necessary drainage systems were constructed, functional and well established at the time of the inspection.

4. Placement and compaction of fill materials

Placement and compaction of this refuse appears to have been completed in accordance with the approved plan.

5. Final grading and revegetation of fill.

N/A

6. Appearances of instability, structural weakness, and other hazardous conditions

There was no appearance of instability, structural weakness or other hazardous conditions observed during this inspection.

7. Other comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatment of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period

The site was idle at the time of the inspection. Recent rains have created some small erosional channels on the haul roads leading to and from the refuse pile. Some road maintenance may be appropriate on these roads.

CERTIFICATION STATEMENT

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 the certified and approved designs for this structure; that the fill structure has been maintained in accordance with the 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 and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By David G. Spillman, Technical Services Manager
Full Name and Title

Signature David G. Spillman Date 10/28/13

P.E. Number and State No. 151610, State of Utah

[Cert. Stamp]

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G.
SPILLMAN
STATE OF UTAH

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE

*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	October 28, 2013
Permit Number	C/007/039
Company Name	Canyon Fuel Company, LLC - Dugout Canyon Mine

EXCESS SPOIL PILE OR REFUSE PILE IDENTIFICATION

Pile Name	Dugout Canyon Mine Refuse Pile
Pile Number	1211-UT-09-01890-01
MSHA ID Number	42-01890

Inspection Date	October 25, 2013
Inspected By	David G. Spillman
Reason for Inspection	Quarterly Inspection & Certification

Attachment to Report? Yes ☐ No ☒

Field Evaluation

1. Foundation preparation, including the removal of all organic material and topsoil.

The foundation preparation was found to be in accordance with the approved plan.

2. Placement of underdrains and protective filter systems.

N/A

3. Installation of final surface drainage systems

All necessary drainage systems were constructed, functional and well established at the time of the inspection.

4. Placement and compaction of fill materials

Placement and compaction of this refuse appears to have been completed in accordance with the approved plan.

5. Final grading and revegetation of fill.

N/A

6. Appearances of instability, structural weakness, and other hazardous conditions

There was no appearance of instability, structural weakness or other hazardous conditions observed during this inspection.

7. Other comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatment of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period

The site was active at the time of the inspection. Refuse material was being hauled in and being pushed and placed in acceptable lifts.
The small erosional channels on the haul roads, mentioned in the last inspection, have now been repaired.

CERTIFICATION STATEMENT

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 the certified and approved designs for this structure; that the fill structure has been maintained in accordance with the 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 and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By David G. Spillman, Technical Services Manager
Full Name and Title

Signature David G. Spillman Date 10/28/13

P.E. Number and State No. 151610, State of Utah

[Cert. Stamp]

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G.
SPILLMAN
STATE OF UTAH

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	*ACT/007/039*	**Report Date**	*03/08/13*
Mine Name	*Dugout Canyon Mine*		
Company Name	*Canyon Fuel Company, LLC*		
Impoundment Identification	**Impoundment Name**	*Surface Facility Sedimentation Pond*	
	Impoundment Number	*None*	
	UPDES Permit Number	*UT0025593*	
	MSHA ID Number	*Impoundment –None (Mine - 42-01890)*	

IMPOUNDMENT INSPECTION

Inspection Date	*03/04/13*
Inspected By	*Dave Spillman*
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	*Routine Quarterly Inspection and Annual Certification*

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

There were no signs of instability, structural weakness or other hazardous conditions observed during this 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 - 100% = 0.34 acre-feet @ an elevation of 6,953.56 feet

- 60% = 0.20 acre-feet @ an elevation of 6,951.66 feet

.

3. Principle and emergency spillway elevations.

Principal Spillway Elevation (as designed) - 6,964.44 feet

Emergency Spillway Elevation (as designed) - 6,964.5 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 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, there had been no discharge from the pond during 2013.

5. Field Evaluation. Describe any changes in the geometry of the impounding 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.

At the time of inspection, the water elevation was approximately 0.5 feet below the top of the primary spillway. The sediment clean-out marker was submerged and not visible. However, as per last December's inspection, sediment clean-out is still recommended for the spring of 2013. Typically, clean-out in the May / June timeframe has worked best in the past and should be our target timeframe for 2013.

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

Signature: _____ **Date:** _____

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	X	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	X	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	X	

COMMENTS AND OTHER INFORMATION

Certification Statement:

PE Cert. Stamp

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G. SPILLMAN
STATE OF UTAH

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 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 in accordance with the Utah R645 Coal Mining Rules.

By: *David G. Spillman, Technical Services Manager*
(Full Name and Title)

Signature: David G. Spillman **Date:** *03/08/13*

P.E. Number & State: *No. 151610, State of Utah*

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 3
Permit Number	*ACT/007/039*	**Report Date**	*06/12/13*
Mine Name	*Dugout Canyon Mine*		
Company Name	*Canyon Fuel Company, LLC*		
Impoundment Identification	**Impoundment Name**	*Surface Facility Sedimentation Pond*	
	Impoundment Number	*None*	
	UPDES Permit Number	*UT0025593*	
	MSHA ID Number	*Impoundment –None (Mine - 42-01890)*	

IMPOUNDMENT INSPECTION

Inspection Date	*06/12/13*
Inspected By	*Dave Spillman*
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	*Routine Quarterly Inspection and Annual Certification*

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

There were no signs of instability, structural weakness or other hazardous conditions observed during this 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 - 100% = 0.34 acre-feet @ an elevation of 6,953.56 feet

- 60% = 0.20 acre-feet @ an elevation of 6,951.66 feet

.

3. Principle and emergency spillway elevations.

Principal Spillway Elevation - 6,964.44 feet

Emergency Spillway Elevation - 6,964.5 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 including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Nielson Construction was contracted to clean the sediment accumulation out of the Dugout Canyon Mine sedimentation pond. Cleanout operations were completed on June 12th. Nielson Construction also cleaned the pond in 2003, 2004, 2006, 2007, 2008, 2009, 2010 and 2011. Following the 2003 cleanout, Johansen and Tuttle Engineering, Inc., was contracted to survey the as-built details of the sedimentation pond. The as-built details of the pond were subsequently submitted to DOGM in September 2003 and were approved by DOGM in October 2003.

During the 2003 cleanout, it was observed that the original pond was excavated to a point where the bottom was solid and substantial. This bottom is easily recognizable during cleaning operations. Given the fact that the pond volume was surveyed and well documented in 2003, no additional surveying was recommended following the subsequent cleanouts. During the 2013 cleanout, it was observed that Nielson Construction cleaned sediment down to the same solid bottom.

5. Field Evaluation. Describe any changes in the geometry of the impounding 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.

At the time of inspection, the cleanout operations were being finalized. With the exception of one small pile along the northwestern edge of the impoundment, it appeared that the total sediment cleanout had been completed. This small pile was just beyond the safe reach of the long reach track-hoe and removal of this minimal volume did not warrant additional risk.

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

Signature: _____ **Date:** _____

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	X	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	X	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	X	

COMMENTS AND OTHER INFORMATION

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 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 in accordance with the Utah R645 Coal Mining Rules.

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G. SPILLMAN
STATE OF UTAH

By: *David G. Spillman, Technical Services Manager*
(Full Name and Title)

Signature: David G. Spillman **Date:** *06/12/13*

P.E. Number & State: *No. 151610, State of Utah*

Dugout Sediment Pond	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	7/24/2013	11:25	VSM	

Site: 002	Action Required			Person Notified	Date Corrected	Comments/Remarks
Permit # UT0025593	Yes/No	OK	N/A			
Stability of Pond						
Pond stability/weakness		X				
Erosion/Stability of banks		X				
Vegetation problem around pond	No					
Hazardous Condition						
Any visible contaminants	No					
Hazardous condition observed	No					
Inlet Conditions						
Inlet functioning		X				
Culvert(s)/ditches		X				
Principle & Emergency Spillways						
Water Discharging (rate)	No					
Pond water level	See Note					
Spillway is clear of debris		X				
Oil skimmer		X				
Emergency spillway		X				
Primary spillway		X				

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remark
Last cleaning date for pond	2013		100% sediment storage capacity (acre/ft)	0.4	Elev. 6954.4 feet
Primary Spillway elevation (ft)	6964		60% sediment storage capacity (acre/ft)	0.24	Elev. 6952.2 feet
Emergency Spillway elevation (ft)	6964.5		Current sediment Volume (est.)	5%	
			Remaining storage capacity (est.)	95%	

Other Observations: Pond 7/8 full of water, no discharge at time of inspection. Light rain at time of inspection, with evidence of recent rain showers.

Raft used in pond cleaning process should be removed.

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	*ACT/007/039*	**Report Date**	*12/27/13*
Mine Name	*Dugout Canyon Mine*		
Company Name	*Canyon Fuel Company, LLC*		
Impoundment Identification	**Impoundment Name**	*Surface Facility Sedimentation Pond*	
	Impoundment Number	*None*	
	UPDES Permit Number	*UT0025593*	
	MSHA ID Number	*Impoundment –None (Mine - 42-01890)*	

IMPOUNDMENT INSPECTION

Inspection Date	*12/16/13*
Inspected By	*Dave Spillman*
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	*Routine Quarterly Inspection and Annual Certification*

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

There were no signs of instability, structural weakness or other hazardous conditions observed during this 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 - 100% = 0.34 acre-feet @ an elevation of 6,953.56 feet

- 60% = 0.20 acre-feet @ an elevation of 6,951.66 feet

.

3. Principle and emergency spillway elevations.

Principal Spillway Elevation - 6,964.44 feet

Emergency Spillway Elevation - 6,964.5 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 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 sediment pond was ice & snow covered. The level of the impounded water was approximately 3 feet below the bottom of the skimmer at the principal spillway riser. The sediment cleanout marker was not visible, however, Nielson Construction was contracted to clean the sediment accumulation out in June. The pond was not discharging and there were no signs of any issues regarding stability of the embankment.

5. Field Evaluation. Describe any changes in the geometry of the impounding 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.

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

Signature: _____ **Date:** _____

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	*X*	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	*X*	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	*X*	

COMMENTS AND OTHER INFORMATION

Certification Statement:

[PE Cert. Stamp]

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 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 in accordance with the Utah R645 Coal Mining Rules.

By: *David G. Spillman, Technical Service Manager*
(Full Name and Title)

Signature: David G. Spillman **Date:** *12/27/13*

P.E. Number & State: *No. 151610, State of Utah*

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
ermit Number	*ACT/007/039*	**Report Date**	*01/18/13*
Mine Name	*Dugout Canyon Mine*		
Company Name	*Canyon Fuel Company, LLC*		
Impoundment Identification	**Impoundment Name**	*Refuse Pile Sedimentation Pond*	
	Impoundment Number	*None*	
	UPDES Permit Number	*UT0025593*	
	MSHA ID Number	*Impoundment –None (Refuse Pile 1211-UT-09-01890-01)*	

IMPOUNDMENT INSPECTION

Inspection Date	*01/15/13*
Inspected By	*Dave Spillman*
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	*Quarterly Inspection / Certification*

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

Construction of the Refuse Pile Sedimentation Pond has been completed in accordance with the approved plan. There were no signs 'nstability, structural weakness or other hazardous conditions observed during this 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 (as designed) - 100% = 0.78 acre-feet @ an elevation of 5,895.9 feet* *- 60% = 0.47 acre-feet @ an elevation of 5,894.7 feet*
	3. Principle and emergency spillway elevations. *Emergency Spillway Elevation (as designed) - 5,902 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 including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

There was approximately 1 foot of snow on the pond at the time of inspection.

This pond has never discharged.

5. Field Evaluation. Describe any changes in the geometry of the impounding 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.

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

Signature: _____ **Date:** _____

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	*X*	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	*X*	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	*X*	

COMMENTS AND OTHER INFORMATION

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 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 in accordance with the Utah R645 Coal Mining Rules.

[RE Cert. Stamp]

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G. SPILLMAN
STATE OF UTAH

By: *David G. Spillman, Technical Services Manager*
(Full Name and Title)

Signature: David G. Spillman **Date:** 1/18/13

P.E. Number & State: *No. 151610, State of Utah*

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	*ACT/007/039*	**Report Date**	*07/09/13*
Mine Name	*Dugout Canyon Mine*		
Company Name	*Canyon Fuel Company, LLC*		
Impoundment Identification	**Impoundment Name**	*Refuse Pile Sedimentation Pond*	
	Impoundment Number	*None*	
	UPDES Permit Number	*UT0025593*	
	MSHA ID Number	*Impoundment –None (Refuse Pile 1211-UT-09-01890-01)*	

IMPOUNDMENT INSPECTION

Inspection Date	*05/23/13*
Inspected By	*Dave Spillman*
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	*Quarterly Inspection / Certification*

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

Construction of the Refuse Pile Sedimentation Pond has been completed in accordance with the approved plan. There were no signs instability, structural weakness or other hazardous conditions observed during this 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 (as designed) - 100% = 0.78 acre-feet @ an elevation of 5,895.9 feet

- 60% = 0.47 acre-feet @ an elevation of 5,894.7 feet

.

3. Principle and emergency spillway elevations.

Emergency Spillway Elevation (as designed) - 5,902 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 including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The pond was dry at the time of the inspection.

This pond has never discharged.

5. Field Evaluation. Describe any changes in the geometry of the impounding 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.

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

Signature: _____ **Date:** _____

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	X	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	X	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	X	

COMMENTS AND OTHER INFORMATION

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 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 in accordance with the Utah R645 Coal Mining Rules.

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G. SPILLMAN
STATE OF UTAH

By: *David G. Spillman, Technical Services Manager*
(Full Name and Title)

Signature: David G. Spillman **Date:** 7/9/13

P.E. Number & State: *No. 151610, State of Utah*

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	*ACT/007/039*	**Report Date**	*10/28/13*
Mine Name	*Dugout Canyon Mine*		
Company Name	*Canyon Fuel Company, LLC*		
Impoundment Identification	**Impoundment Name**	*Refuse Pile Sedimentation Pond*	
	Impoundment Number	*None*	
	UPDES Permit Number	*UT0025593*	
	MSHA ID Number	*Impoundment –None (Refuse Pile 1211-UT-09-01890-01)*	

IMPOUNDMENT INSPECTION

Inspection Date	*09/18/13*
Inspected By	*Dave Spillman*
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	*Quarterly Inspection / Certification*

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

Construction of the Refuse Pile Sedimentation Pond has been completed in accordance with the approved plan. There were no signs instability, structural weakness or other hazardous conditions observed during this 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 (as designed) - 100% = 0.78 acre-feet @ an elevation of 5,895.9 feet* *- 60% = 0.47 acre-feet @ an elevation of 5,894.7 feet* .
	3. Principle and emergency spillway elevations. *Emergency Spillway Elevation (as designed) - 5,902 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 including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The pond contained approximately one foot of water at the time of the inspection.

This pond has never discharged.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding 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.

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

Signature: _____ **Date:** _____

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	X	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	X	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	X	

COMMENTS AND OTHER INFORMATION

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 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 in accordance with the Utah R645 Coal Mining Rules.

[PE Seal]
LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G. SPILLMAN
STATE OF UTAH

By: *David G. Spillman, Technical Services Manager*
(Full Name and Title)

Signature: David G. Spillman **Date:** 10/28/13

P.E. Number & State: *No. 151610, State of Utah*

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	*ACT/007/039*	**Report Date**	*10/28/13*
Mine Name	*Dugout Canyon Mine*		
Company Name	*Canyon Fuel Company, LLC*		
Impoundment Identification	**Impoundment Name**	*Refuse Pile Sedimentation Pond*	
	Impoundment Number	*None*	
	UPDES Permit Number	*UT0025593*	
	MSHA ID Number	*Impoundment –None (Refuse Pile 1211-UT-09-01890-01)*	

IMPOUNDMENT INSPECTION

Inspection Date	*10/25/13*
Inspected By	*Dave Spillman*
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	*Quarterly Inspection / Certification*

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

Construction of the Refuse Pile Sedimentation Pond has been completed in accordance with the approved plan. There were no signs instability, structural weakness or other hazardous conditions observed during this 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 (as designed) - 100% = 0.78 acre-feet @ an elevation of 5,895.9 feet* *- 60% = 0.47 acre-feet @ an elevation of 5,894.7 feet* .
	3. Principle and emergency spillway elevations. *Emergency Spillway Elevation (as designed) - 5,902 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 including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The pond contained approximately six inches of water at the time of the inspection.

This pond has never discharged.

5. Field Evaluation. Describe any changes in the geometry of the impounding 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.

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

Signature: _____ **Date:** _____

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	X	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	X	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	X	

COMMENTS AND OTHER INFORMATION

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 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 in accordance with the Utah R645 Coal Mining Rules.

[PE Cert. Stamp]

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G. SPILLMAN
STATE OF UTAH

By: *David G. Spillman, Technical Services Manager*
(Full Name and Title)

Signature: David G. Spillman **Date:** 10/28/13

P.E. Number & State: *No. 151610, State of Utah*

Pace Cyn.Sediment Basin	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	3/22/2013	1320	Vicky A Miller VSM	

Site: 006 Permit # UT0025593	Action Required			Person Notified	Date Corrected	Comments/Remarks
	Yes/No	OK	N/A			
Stability of Pond						
Basin stability/weakness		X				
Erosion/Stability of banks		X				
Vegetation problem around basin	No					
Hazardous Condition						
Any visible contaminants	No					
Hazardous condition observed	No					
Inlet Conditions						
Inlet functioning		X				
Culvert(s)/ditches		X				
Principle & Emergency Spillways						
Water Discharging (rate)			X			
Pond water level			X			At time of inspection pond had some snow in bottom.
Spillway is clear of debris			X			
Oil skimmer		X				
Emergency spillway			X			
Primary spillway		X				

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remarks
Last cleaning date for basin	NA		100% sediment storage capacity (acre/ft)	NA	
Primary Spillway elevation (ft)	NA		60% sediment storage capacity (acre/ft)	NA	
Emergency Spillway elevation (ft)	NA		Current sediment Volume (est.)	20 %	
			Remaining storage capacity (est.)	80%	

Other Observations: No sign of recent discharge. Some snow on the embankments and in bottom of pond.
Day was cold and windy, access road was muddy with patches of snow.

Pace Cyn.Sediment Basin	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	5/23/2013	1005	Vicky A Muller VSM	

Site: 006	Action Required			Person Notified	Date Corrected	Comments/Remarks
Permit # UT0025593	Yes/No	OK	N/A			
Stability of Pond						
Basin stability/weakness		X				
Erosion/Stability of banks		X				
Vegetation problem around basin	No					
Hazardous Condition						
Any visible contaminants	No					
Hazardous condition observed	No					
Inlet Conditions						
Inlet functioning		X				
Culvert(s)/ditches		X				
Principle & Emergency Spillways						
Water Discharging (rate)			X			
Pond water level			X			No water present in basin at time of inspection
Spillway is clear of debris			X			
Oil skimmer		X				
Emergency spillway			X			
Primary spillway		X				

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remarks
Last cleaning date for basin	NA		100% sediment storage capacity (acre/ft)	NA	
Primary Spillway elevation (ft)	NA		60% sediment storage capacity (acre/ft)	NA	
Emergency Spillway elevation (ft)	NA		Current sediment Volume (est.)	20 %	
			Remaining storage capacity (est.)	80%	

Other Observations: No sign of recent discharge.

Pace Cyn.Sediment Basin	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	7/24/2013	7:30	Vicky S Miller VSM	

Site: 006	Action Required			Person	Date	Comments/Remarks
Permit # UT0025593	Yes/No	OK	N/A	Notified	Corrected	
Stability of Pond						
Basin stability/weakness		X				
Erosion/Stability of banks		X				
Vegetation problem around basin	No					See note below.
Hazardous Condition						
Any visible contaminants	No					
Hazardous condition observed	No					
Inlet Conditions						
Inlet functioning		X				
Culvert(s)/ditches		X				
Principle & Emergency Spillways						
Water Discharging (rate)			X			
Pond water level			X			
Spillway is clear of debris			X			
Oil skimmer		X				
Emergency spillway			X			
Primary spillway		X				

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remarks
Last cleaning date for basin	NA		100% sediment storage capacity (acre/ft)	NA	
Primary Spillway elevation (ft)	NA		60% sediment storage capacity (acre/ft)	NA	
Emergency Spillway elevation (ft)	NA		Current sediment Volume (est.)	20 %	
			Remaining storage capacity (est.)	80%	

Other Observations: No sign of recent discharge. Willows growing in bottom of sediment trap, embankments vegetated.
Evidence of recent rain. Vegetation needs to be removed from in front of culvert outlet for sediment trap.

Pace Cyn.Sediment Basin	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	10/9/2013	11:30 AM	JH/JKS	

Site: 006	Action Required			Person Notified	Date Corrected	Comments/Remarks
Permit # UT0025593	Yes/No	OK	N/A			
Stability of Pond						
Basin stability/weakness		X				
Erosion/Stability of banks		X				
Vegetation problem around basin	NO					See Note Below
Hazardous Condition						
Any visible contaminants	NO					
Hazardous condition observed	NO					
Inlet Conditions						
Inlet functioning		X				
Culvert(s)/ditches		X				
Principle & Emergency Spillways						
Water Discharging (rate)			X			
Pond water level			X			
Spillway is clear of debris			X			
Oil skimmer		X				
Emergency spillway			X			
Primary spillway		X				

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remarks
Last cleaning date for basin	July/Aug 2011		100% sediment storage capacity (acre/ft)	0.4	Elev. 6954.4
Primary Spillway elevation (ft)	6964		60% sediment storage capacity (acre/ft)	0.24	Elev. 6952.2
Emergency Spillway elevation (ft)	6964.5		Current sediment Volume (est.)		
			Remaining storage capacity (est.)		

Other Observations: No sign of recent discharge. Willows growing in bottom of sediment trap and embakement covered with vegetation.

Leachfield Dugout	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	1/29/2013	1105	Vicky L Miller VSM	

Site:Leachfield	Action Required			Person Notified	Date Corrected	Comments/Remarks
Permit # NA	Yes/No	OK	N/A			
Field Conditions						
Erosion/Stability of field		X				
Vegetation problem (deep rooted species)		X				
Hazardous Condition						
Any visible contaminants on surface	No					
Hazardous condition observed	No					
Inlet Conditions						
System functioning		X				Appears to be functioning as designed
Site ditches functioning		X				

Other Useful Information									

Other Observations: Leachfield was snow covered at time of inspection.

Leachfield Dugout	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	5/24/2013	845	VSM Vicky A Miller	

Site:Leachfield Permit # NA	Action Required			Person Notified	Date Corrected	Comments/Remarks
	Yes/No	OK	N/A			
Field Conditions						
Erosion/Stability of field		X				
Vegetation problem (deep rooted species)		X				
Hazardous Condition						
Any visible contaminants on surface	No					
Hazardous condition observed	No					
Inlet Conditions						
System functioning		X				Appears to be functioning as designed
Site ditches functioning		X				

Other Useful Information									

Other Observations: Some shovel work on the berm in the southeast corner is needed, contacted Mike Kelley to perform the work on 5/24/13.
Vegetation on the site had been grazed most likely by deer or elk, livestock not seen in the area during inspection.

Leachfield Dugout	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	7/24/2013	10:35	Vicky A Mullis VSM	

Site:Leachfield	Action Required			Person Notified	Date Corrected	Comments/Remarks
Permit # NA	Yes/No	OK	N/A			
Field Conditions						
Erosion/Stability of field		X				
Vegetation problem (deep rooted species)		X				
Hazardous Condition						
Any visible contaminants on surface	No					
Hazardous condition observed	No					
Inlet Conditions						
System functioning		X				Appears to be functioning as designed
Site ditches functioning		X				

Other Observations: Shovel work from previous inspection report was completed.
Vegetation on the site appears to have been grazed.

Leachfield Dugout	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	12/12/2013	14:35	Vicky A Mueller VSM	

Site:Leachfield	Action Required			Person Notified	Date Corrected	Comments/Remarks
Permit # NA	Yes/No	OK	N/A			
Field Conditions						
Erosion/Stability of field		X				
Vegetation problem (deep rooted species)		X				
Hazardous Condition						
Any visible contaminants on surface	No					
Hazardous condition observed	No					
Inlet Conditions						
System functioning		X				Appears to be functioning as designed
Site ditches functioning		X				

Other Observations: Evidence in site ditches and adjacent drainages of preciptation since previous inspection. Vegetation has been grazed by wildlife.

APPENDIX B

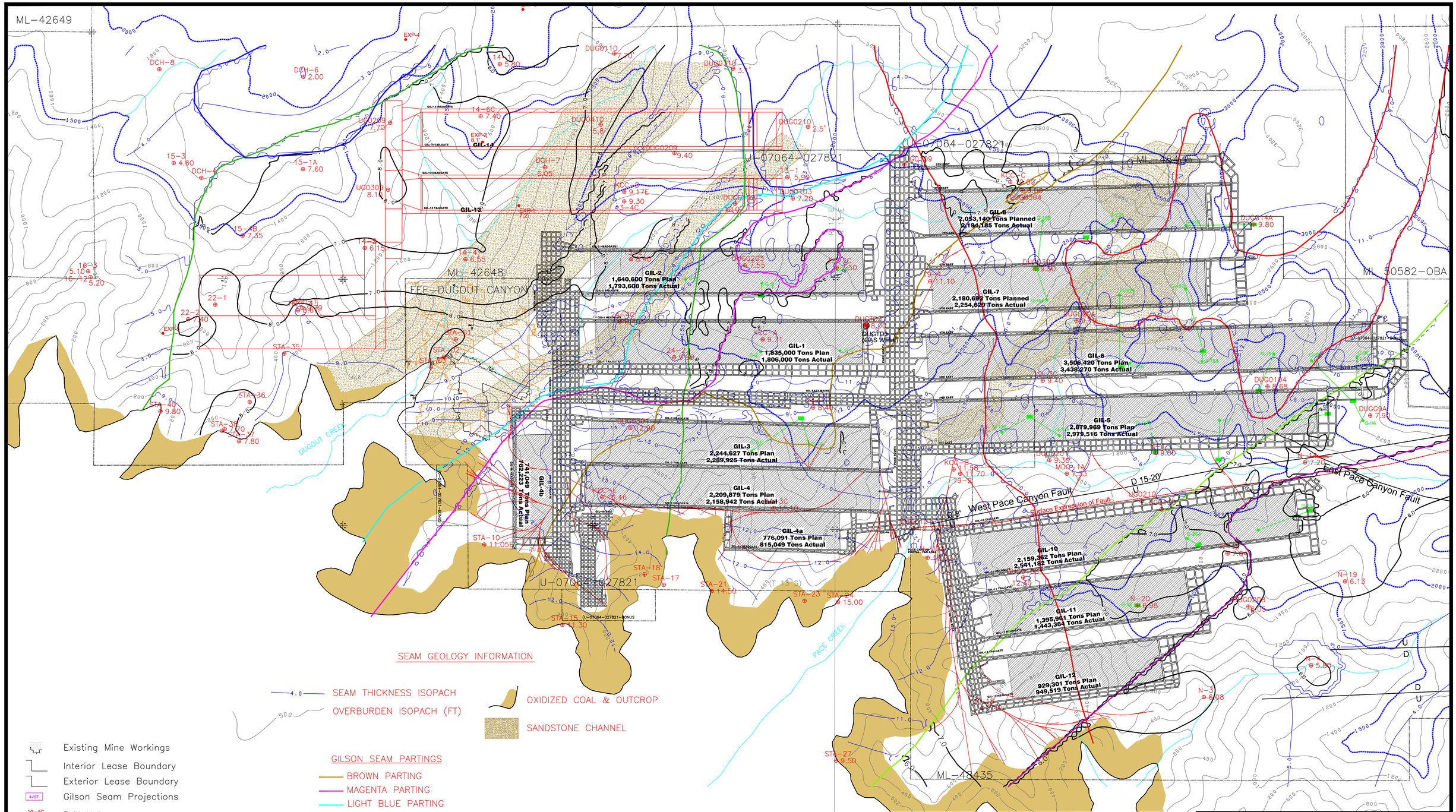
Certified Mine Maps

As required under R645-301-512 and R645-301-521

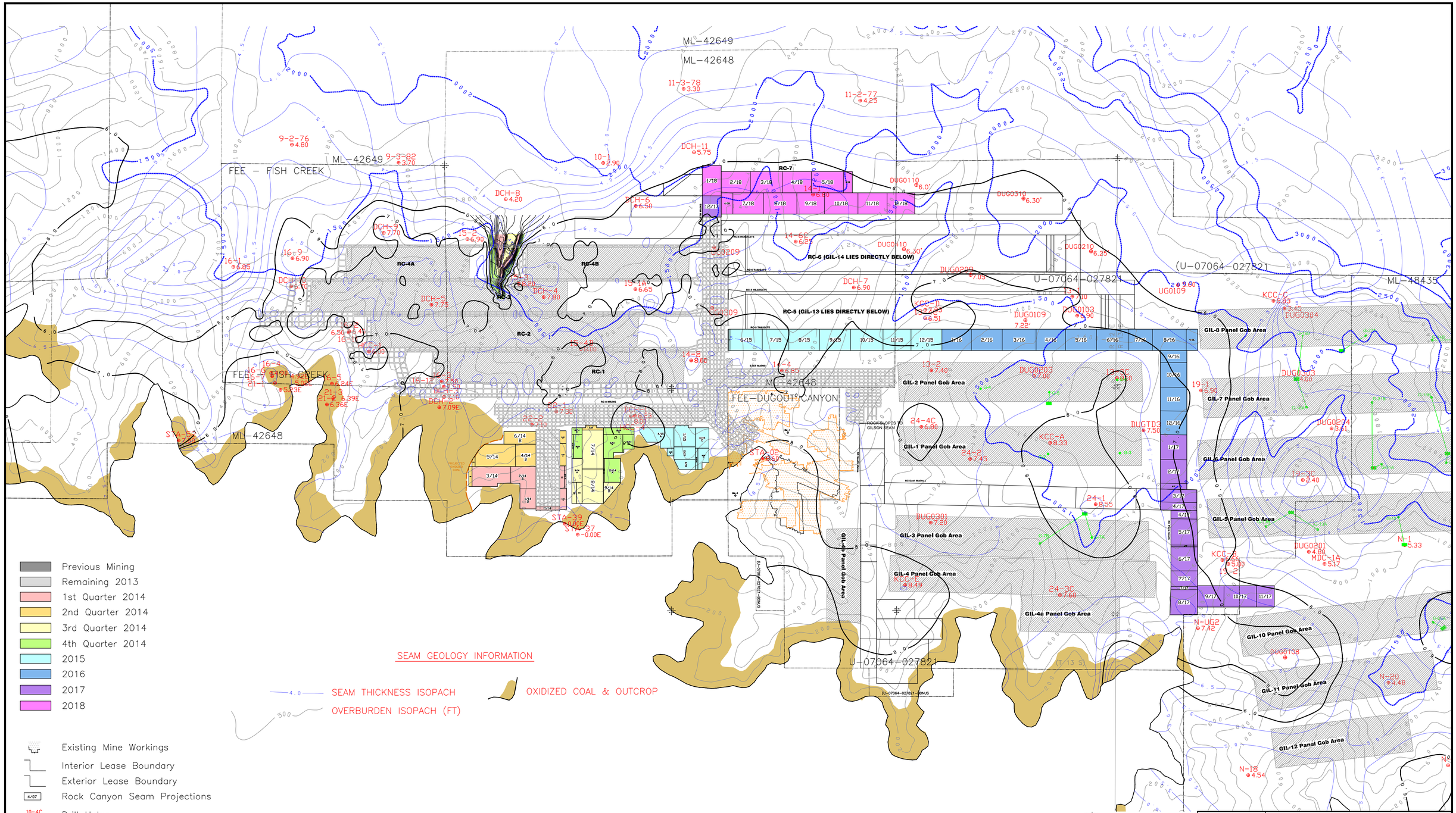
CONTENTS

Mine Map – Gilson Seam

Mine Map – Rock Canyon Seam



Current mine plan shows no production in the Gilson seam for the next five years.


ML-42649
ML-42648
FEE - FISH CREEK
FEE-DUGOUT CANYON
U-07064-027821
(U-07064-027821)
ML-48435
RC-1
RC-2
RC-3
RC-4A
RC-4B
RC-5 (GIL-13 LIES DIRECTLY BELOW)
RC-6 (GIL-14 LIES DIRECTLY BELOW)
RC-7
GIL-1 Panel Gob Area
GIL-2 Panel Gob Area
GIL-3 Panel Gob Area
GIL-4 Panel Gob Area
GIL-4a Panel Gob Area
GIL-4b Panel Gob Area
GIL-5 Panel Gob Area
GIL-6 Panel Gob Area
GIL-7 Panel Gob Area
GIL-8 Panel Gob Area
GIL-10 Panel Gob Area
GIL-11 Panel Gob Area
GIL-12 Panel Gob Area
SEAM GEOLOGY INFORMATION
SEAM THICKNESS ISOPACH
OVERBURDEN ISOPACH (FT)
OXIDIZED COAL & OUTCROP
Previous Mining
Remaining 2013
1st Quarter 2014
2nd Quarter 2014
3rd Quarter 2014
4th Quarter 2014
2015
2016
2017
2018
Existing Mine Workings
Interior Lease Boundary
Exterior Lease Boundary
Rock Canyon Seam Projections
Drill Holes
Surface Location – Existing MDW Drill Site
Exisitng Methane Drainage Well
Surface Location – Proposed MDW Drill Site
Proposed Drilling
REGISTERED PROFESSIONAL ENGINEER
No. 151610
DAVID G. SPILLMAN
STATE OF UTAH
N
DATE: 01/10/14
DESIGNED BY:
DRAWN BY: JKS
CHECKED BY: RJ
REVISED BY:
SCALE: 1"=1000'
FILENAME:
Canyon Fuel Company, LLC
Dugout Canyon Mine
Rock Canyon Seam
2014 Budget Map
P.O. BOX 1029
WELLINGTON, UTAH 84542
DRAWING OR MAP NUMBER

APPENDIX C

Other Information

As required under R645-300, R645-301, & R645-302

CONTENTS

Refuse Pile Assessment

Subsidence Report & Map

Waste Rock Sampling

Dugout Canyon Mine Refuse Pile
2013 Annual Assessment

The following information has been determined for the 2013 activities conducted at the Dugout Canyon Mine Refuse Pile:

- 2013 Total Delivered Tonnage – 10,326 Tons
- Estimated Density of the Placed and Compacted Refuse – 112 lbs/ft^3
- Calculated 2013 Placed Refuse Volume – 184,393 ft^3 (6,829 yd^3)
- Permitted Capacity Remaining at Year's End – 2,632,676 ft^3 (147,429 Tons @ 112 lbs/ft^3)

David G. Spillman, P.E.
Technical Services Manager
P.E. No. 151610-2202, State of Utah

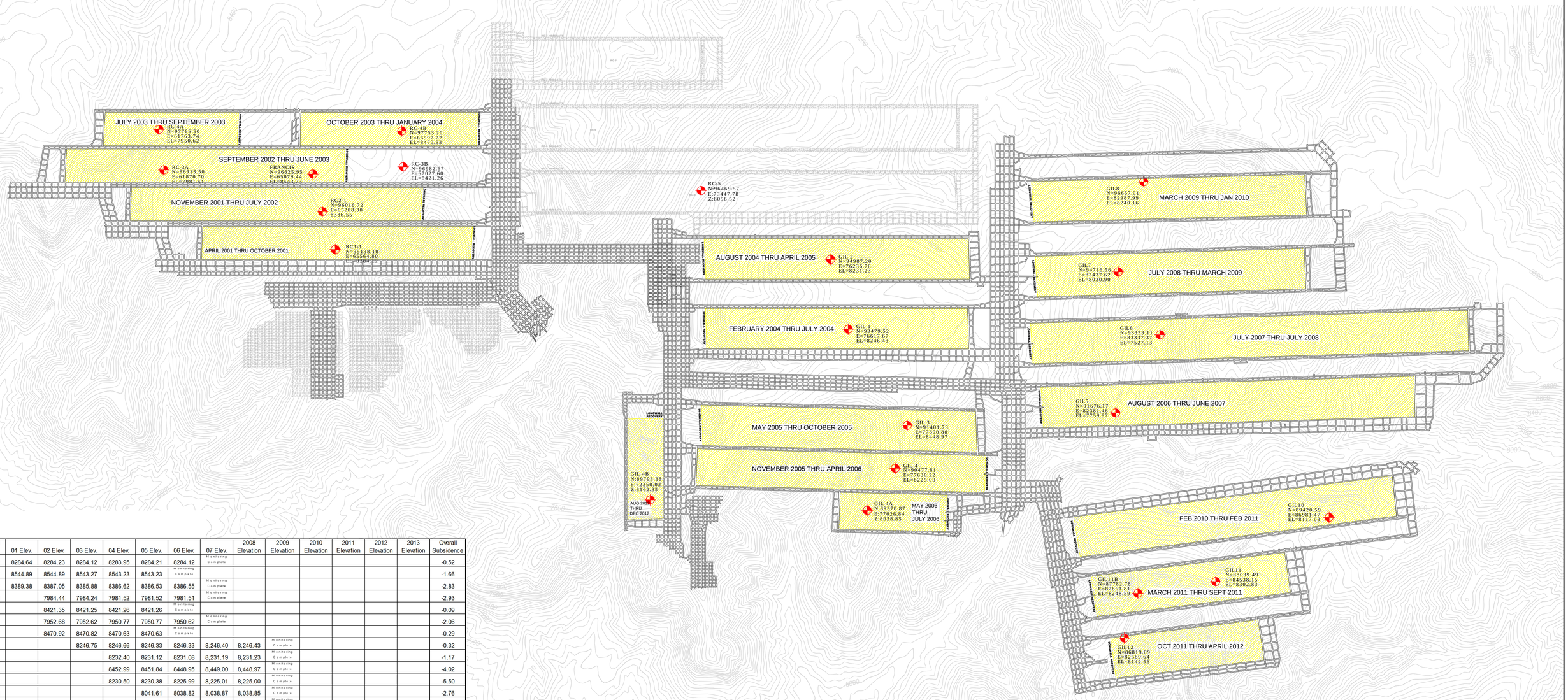
LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G. SPILLMAN
3/7/14
STATE OF UTAH

DUGOUT CANYON MINE - Visual Checks for Subsidence - 2013

Dugout Canyon Mine, M&RP, Chapter 5, Section 525 "Visual checks for subsidence will be made during all surface activities, especially during water monitoring activities. These visual surveys will be used to detect surface irregularities and surface cracks."

During 2013 water monitoring activities in March (no access to higher elevations), May, July and October "**No surface irregularities or surface cracks were observed".**

Vicky A Miller 3-18-14



Station	Original Elev.	01 Elev.	02 Elev.	03 Elev.	04 Elev.	05 Elev.	06 Elev.	07 Elev.	2008 Elevation	2009 Elevation	2010 Elevation	2011 Elevation	2012 Elevation	2013 Elevation	Overall Subsidence
RC 1-1	8284.64	8284.64	8284.23	8284.12	8283.95	8284.21	8284.12	Monitoring Complete							-0.52
Francis	8544.89	8544.89	8544.89	8543.27	8543.23	8543.23	Monitoring Complete								-1.66
RC 2-1	8389.38	8389.38	8387.05	8385.88	8386.62	8386.53	8386.55	Monitoring Complete							-2.83
RC-3A	7984.44		7984.44	7984.24	7981.52	7981.52	7981.51	Monitoring Complete							-2.93
RC-3B	8421.35		8421.35	8421.25	8421.26	8421.26	Monitoring Complete								-0.09
RC-4A	7952.68		7952.68	7952.62	7950.77	7950.77	7950.62	Monitoring Complete							-2.06
RC-4B	8470.92		8470.92	8470.82	8470.63	8470.63	Monitoring Complete								-0.29
GIL 1	8246.75			8246.75	8246.66	8246.33	8246.33	8,246.40	8,246.43	Monitoring Complete					-0.32
GIL 2	8232.40				8232.40	8231.12	8231.08	8,231.19	8,231.23	Monitoring Complete					-1.17
GIL 3	8452.99				8452.99	8451.84	8448.95	8,449.00	8,448.97	Monitoring Complete					-4.02
GIL 4	8230.50				8230.50	8230.38	8225.99	8,225.01	8,225.00	Monitoring Complete					-5.50
GIL 4A	8041.61					8041.61	8038.82	8,038.87	8,038.85	Monitoring Complete					-2.76
GIL 5	7760.51						7760.51	7759.87	7759.87	Monitoring Complete					-0.64
GIL 6	7527.96							7527.96	7527.94	7527.14	7527.10	7527.13	Monitoring Complete		-0.83
GIL 7	8031.93								8031.93	8031.10	8031.03	8030.90	Monitoring Complete		-1.03
GIL 8	8240.53								8240.53	8240.53	8240.02	8240.16	Monitoring Complete		-0.37
GIL 10	8117.09									8117.09	8117.06	8117.03	Monitoring Complete		-0.06
GIL 11	8304.63										8304.63	8303.70	8303.02	8302.83	-1.80
GIL 11B	8251.09										8251.09	8250.70	8248.83	8248.59	-2.50
GIL 12	8143.52										8143.52	8142.94	8142.58	8142.56	-0.96
GIL 4B	8162.67											8162.67	8162.53	8162.35	-0.32
RC-5	8096.52											8096.52			

Note: Coordinates and elevations provided by:

Ware Surveying, L.L.C.
1344 North 1000 West
Price, UT 84501

Field work was completed August 01, 2013.

REGISTERED PROFESSIONAL ENGINEER
No. 151610
DAVID G. SPILLMAN
STATE OF UTAH

SUBSIDENCE REPORT 2013

Canyon Fuel Company, LLC.
Dugout Mine

P.O. BOX 1029 WELLINGTON, UTAH 84542 435-637-6360	Date: January 17, 2014	Checked By: D.G.S.	REVISION:
CAD File: subsidence report 2013-rcp.dwg	Scale: 1" = 1000'	Drawn By: J.H.	
		Updated By: JKS	

Inter-Mountain Labs
Your Environmental Monitoring Partner
1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Date: 7/1/2013

CLIENT: Canyon Fuel Company
Project: Dugout Canyon Mine
Lab Order: S1306325

CASE NARRATIVE

Report ID: S1306325001

Sample WR2013-01 was received on June 19, 2013.

Samples were analyzed using the methods outlined in the following references:

U.S.E.P.A. 600/2-78-054 "Field and Laboratory Methods Applicable to Overburden and Mining Soils", 1978
American Society of Agronomy, Number 9, Part 2, 1982
USDA Handbook 60 "Diagnosis and Improvement of Saline and Alkali Soils", 1969
Wyoming Department of Environmental Quality, Land Quality Division, Guideline No. 1, 1984
New Mexico Overburden and Soils Inventory and Handling Guideline, March 1987
State of Utah, Division of Oil, Gas, and Mining: Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining, April 1988
Montana Department of State Lands, Reclamation Division: Soil, Overburden, and Regraded Spoil Guidelines, December 1994
State of Nevada Modified Sobek Procedure
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All Quality Control parameters met the acceptance criteria defined by EPA and Inter-Mountain Laboratories except as indicated in this case narrative.

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Labs
1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Your Environmental Monitoring Partner

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1306325001

Project: Dugout Canyon Mine
Date Received: 6/19/2013

Date Reported: 7/1/2013
Work Order: S1306325

Lab ID	Sample ID	pH	Saturation	Electrical Conductivity	Field Capacity	Wilt Point	PE Calcium	PE Magnesium	PE Potassium	PE Sodium	SAR
		s.u.	%	dS/m	%	%	meq/L	meq/L	meq/L	meq/L	
S1306325-001	WR2013-01	7.8	28.6	3.47	13.2	5.9	16.3	22.8	1.49	8.80	1.99

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Labs
1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Your Environmental Monitoring Partner

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1306325001

Project: Dugout Canyon Mine
Date Received: 6/19/2013

Date Reported: 7/1/2013
Work Order: S1306325

Lab ID	Sample ID	Sand %	Silt %	Clay %	Texture	Boron ppm	Nitrate (as N) ppm	Phosphorus ppm	Selenium ppm	TKN %
S1306325-001	WR2013-01	78.0	14.0	8.0	Loamy Sand	0.75	<0.1	1.7	0.02	0.13

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Labs
1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Your Environmental Monitoring Partner

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1306325001

Project: Dugout Canyon Mine
Date Received: 6/19/2013

Date Reported: 7/1/2013
Work Order: S1306325

Lab ID	Sample ID	Available Sodium meq/100g	Exchangeable Sodium meq/100g	Total Carbon %	TOC %
S1306325-001	WR2013-01	0.46	0.21	5.9	4.2

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

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Your Environmental Monitoring Partner

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1306325001

Project: Dugout Canyon Mine
Date Received: 6/19/2013

Date Reported: 7/1/2013
Work Order: S1306325

Lab ID	Sample ID	Total Sulfur %	T.S. AB t/1000t	Neutral. Potential t/1000t	T.S. ABP t/1000t	Sulfate Sulfur %	Pyritic Sulfur %	Organic Sulfur %	PyriticS AB t/1000t	PyriticS ABP t/1000t
S1306325-001	WR2013-01	1.45	45.2	138	92.5	0.08	1.19	0.18	37.1	101

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
CHAIN OF CUSTODY
DUGOUT CANYON MINE

S1306325-001

Sample Identification	WR 2013-01											
Sample Date	06/13/13											
Number of Samples	1											
Type of Soil	WR											
Laboratory Analyses												
Table 6, Topsoil & Overburden Parameters	X											
AND												
Texture	X											
pH	X											
Electrical Conductivity	X											
Total Carbon	X											
SAR	X											
Water Holding Capacity	X											
Plant Available Nitrogen	X											
Phosphorus	X											
Pyritic sulfur	X											
T.S. ABP	X											

WR (Waste Rock), SS (Sub-Soil), TS (Topsoil)

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
Robert Jones	6/17/13	2:00 pm	Kaye Abecon	6/19/13	

Inter-Mountain Labs
Your Environmental Monitoring Partner
1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Date: 1/28/2014

CLIENT: Canyon Fuel Company
Project: Dugout Canyon Mine
Lab Order: S1312032

CASE NARRATIVE

Report ID: S1312032001

Sample WR 2013-04 was received on November 25, 2013.

Samples were analyzed using the methods outlined in the following references:

U.S.E.P.A. 600/2-78-054 "Field and Laboratory Methods Applicable to Overburden and Mining Soils", 1978
American Society of Agronomy, Number 9, Part 2, 1982
USDA Handbook 60 "Diagnosis and Improvement of Saline and Alkali Soils", 1969
Wyoming Department of Environmental Quality, Land Quality Division, Guideline No. 1, 1984
New Mexico Overburden and Soils Inventory and Handling Guideline, March 1987
State of Utah, Division of Oil, Gas, and Mining: Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining, April 1988
Montana Department of State Lands, Reclamation Division: Soil, Overburden, and Regraded Spoil Guidelines, December 1994
State of Nevada Modified Sobek Procedure
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All Quality Control parameters met the acceptance criteria defined by EPA and Inter-Mountain Laboratories except as indicated in this case narrative.

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

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1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Your Environmental Monitoring Partner

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1312032001

Project: Dugout Canyon Mine
Date Received: 11/25/2013

Date Reported: 1/28/2014
Work Order: S1312032

Lab ID	Sample ID	pH	Saturation	Electrical Conductivity	Field Capacity	Wilt Point	PE Calcium	PE Magnesium	PE Potassium	PE Sodium	SAR
		s.u.	%	dS/m	%	%	meq/L	meq/L	meq/L	meq/L	
S1312032-001	WR 2013-04	7.8	28.1	2.01	15.5	6.8	6.99	9.69	0.91	11.8	4.08

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Labs
1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Your Environmental Monitoring Partner

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1312032001

Project: Dugout Canyon Mine
Date Received: 11/25/2013

Date Reported: 1/28/2014
Work Order: S1312032

Lab ID	Sample ID	Sand %	Silt %	Clay %	Texture	Available Boron ppm	Available Nitrate(as N) ppm	Available Phosphorus ppm	Available Selenium ppm	TKN %
S1312032-001	WR 2013-04	68.0	18.0	14.0	Sandy Loam	0.77	0.4	3.0	0.03	0.13

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

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Your Environmental Monitoring Partner

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1312032001

Project: Dugout Canyon Mine
Date Received: 11/25/2013

Date Reported: 1/28/2014
Work Order: S1312032

Lab ID	Sample ID	Available Sodium meq/100g	Exchangeable Sodium meq/100g	Total Carbon %	TOC %
S1312032-001	WR 2013-04	0.74	0.41	7.9	5.7

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Labs
1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Your Environmental Monitoring Partner

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1312032001

Project: Dugout Canyon Mine
Date Received: 11/25/2013

Date Reported: 1/28/2014
Work Order: S1312032

Lab ID	Sample ID	Total Sulfur %	T.S. AB t/1000t	Neutral. Potential t/1000t	T.S. ABP t/1000t	Sulfate Sulfur %	Pyritic Sulfur %	Organic Sulfur %	PyriticS AB t/1000t	PyriticS ABP t/1000t
S1312032-001	WR 2013-04	1.13	35.3	185	150	0.28	0.63	0.23	19.6	166

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
CHAIN OF CUSTODY
DUGOUT CANYON MINE

513/2032-001

Sample Identification	WR 2013-04											
Sample Date	11/21/13											
Number of Samples	1											
Type of Soil	WR											
Laboratory Analyses												
Table 6, Topsoil & Overburden Parameters	X											
AND												
Texture	X											
pH	X											
Electrical Conductivity	X											
Total Carbon	X											
SAR	X											
Water Holding Capacity	X											
Plant Available Nitrogen	X											
Phosphorus	X											
Pyritic sulfur	X											
T.S. ABP	X											

WR (Waste Rock), SS (Sub-Soil), TS (Topsoil)

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
Robert Jones	11/21/2013	12:20 PM	Kane A Secor	11/25/13	